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ESSAYS AND CASES.

Art I.—Clinical Reports.

Introductory Remarks.

It is our intention henceforth, to group all the clinical cases, which may be published in the Journal, under one head, the first of each number. There will be an advantage to our correspondents in this, in as much, as a case, however important, when thrown in among essays, dissertations and histories of epidemics, is liable to be overlooked. In the present number our own clinical reports, are postponed to make room for those of correspondents, but they will appear in October. Convinced that all our readers, meet very frequently with cases, which are worthy of being reported, we respectfully solicit their contribution towards our *Western clinique*, which may thus, we flatter ourselves, be rendered interesting, both at home and abroad.. If we occasionally take the liberty of abridging what is sent to us (looking faithfully to the preservation and presentation of the main facts) we hope it will not be considered an unwarrantable liberty. We trust, also, that we shall give no offence, by saying that most of the reports sent us, are not drawn up with the care that might easily be practiced. The manual execution is often so bad as to obscure the meaning of the author; and in giving the recipies, the names of the

medicines are frequently too much abreviated, and the quantities too uncertain, while the union of common and scientific—of old and new—of exploded and unexploded—pharmaceutic terms occasionally borders on the ludicrous. Many physicians seem to consider the reporting of cases, as a business that may be turned off their hands with less labor than an essay; but we are of different opinion. The world is overwhelmed with reports of cases, three-fourths of which are never read by any body, for the very substantial reason that they are unreadable; or if any one has the courage to travel through them, he finds confusion and prolixity; want of discrimination between the essential and unessential; redundance on the one hand and meagerness on the other; the triumphant establishment of a common-placeism, which had been re-established and re-affirmed annually since the year in which Hippocrates graduated; finally, a jumble of the past and present tenses of the verbs, which makes the reader uncertain whether the patient was or is under treatment. In truth we believe, that the literature of clinical cases, is at once the most neglected and the most difficult in the profession; that this remark is not applicable to the West, or even the United States, merely, and that its better cultivation would contribute largely to the improvement of medical science; but as it is uncertain whether any body will think with us, we shall say no more, lest we be charged with the affectation of oddity. D.

OBLITERATION OF THE VAGINA OF TEN MONTHS STANDING, CURED BY THE KNIFE. By Dr. Robert Robson, *of New Harmony, Ia.*

In May 1836 I was called to visit Mrs. H., living near New Harmony, Ia., and informed by her parents, that in the year 1835 while in a state of pregnancy, she had a severe attack of remittent fever, which terminated in abortion; after which, she slowly recovered strength for some weeks; when she suddenly became afflicted with uterine pains, affecting the loins, hips and lower part of the abdomen. Frequent applications were then made to her physician, without, however, making him acquainted with her real situation, and medicines were administered which only tended to increase the violence of her pains. In this way she

continued for some months. I found her pale and reduced to a state bordering on marasmus, with restless nights, loss of appetite, &c. Her uterine pains were strong, producing the appearance of a firm tumor half an inch within the vulva, which yielded to pressure. On further and more minute examination, I found the vagina at that point completely obliterated. The knife seemed the only resource, and agreeably to the request of the patient and her friends, I employed it. I made a crucial incision in the direction of the os tincæ, when an immense quantity of black putrid blood, of the consistence of molasses, was slowly, but regularly discharged, mixed with lumps or flakes of putrid matter which stopped up the orifice, and had to be removed in order to continue the flow.

A strong glass tube of a conical form, open at both ends, and sheathed in one of gum elastic, was then dipped in olive oil and the small end introduced into the newly made orifice, which answered the double purpose of dilating the parts and admitting the accumulations of the uterus to pass off. A dose of ol. Ricini was then administered and the patient put to bed, when she enjoyed for the first time in many months, several hours of uninterrupted sleep. I continued to visit her, and found the bad symptoms gradually subsiding, and by the assistance of tonics conjoined with laxatives, she was finally restored to perfect health.

FACIAL NEURALGIA CURED BY THE ATROPA BELLADONA.—*By the same.*

Mrs. B. of New Harmony, of delicate constitution, subject to chills and fevers, went to bed on the night of 22d of January 1834, quite well. She awoke about sun-rise with a strange creeping and tingling sensation in the left temple, eye-ball, and adjacent parts, which very soon increased to an intolerable burning, and at length to an acute pain. The paroxysm lasted with seemingly increased violence, until the turn of the day, when she gradually experienced a remission of pain, and by evening was quite easy. I was called to see her at nine o'clock in the morning. *Symptoms.* In addition to the symptoms just enumerated, she had a small pulse, skin dry and rather hot, tongue coated, bowels

open, with pain about the epigastric and left hypochondriac region. Believing the case to be connected with congestion and derangement of the digestive organs, I prescribed venesection to 20 ounces; and calomel and opium to be followed by aperients, to the seat of the pain a turpentine liniment.

23d. Eight o'clock A. M.—Medicine operated well, has had three or four bilious evacuations; but the pain had returned and was intense, affecting the infra orbital nerve; complains much, thinks her eye will burst, pains in the left hypochondriac region better, but it still continues tense and sore on pressure. *Prescription*—calomel, followed by ol. Ricini—a blister to the left temple extended over the forehead, and repeated doses of the sedative solution of opium during the paroxysm.

24th. Eight o'clock A. M.—Thinks herself getting worse, pain most excruciating, complains of loss of vision, pupil dilated, and a partial paralysis of the upper eye-lid, bowels open, and pain in the left hypochondriac region, much relieved. *Prescription*—Sulph. Quin. in large doses every two hours during the intermission, and the Sulph. Quin. on cerate applied over the raw surface, occasioned by the blisters.

25th. Nine o'clock A. M.—Pain excessively severe and radiateing across the temple and up the forehead, into the right orbit; declares she cannot live without some immediate relief, pupil much dilated, but can see at short distances, parts above the orbit swollen, &c. Seeing that the pains still continued without the slightest abatement from the treatment heretofore pursued, I resolved to try the Atropa Belladona, when 20 grains were dissolved in acetic acid, ʒj. and rubbed for a few minutes over the superciliary arch, a linen cloth was then moistened and applied over the os frontis, eye-ball, and left temple, when an almost instantaneous cessation of pain was experienced which continued until the following morning, when some slight pain was again felt and the Atropa Belladona again applied, when she was entirely relieved and has had no subsequent attack.

Editorial Remark.

This was a case of miasmatic Neuralgia—disguised intermittent—many of which occur in the West. We have not tried the local applications of the extract of Belladona, having been satisfied with the internal administration of the Sulphate of Quinine,

which we are disposed to think was in reality the chief remedy in this case. D.

Osteo-Sarcoma and Excision of a large portion of the Lower jaw. By Dr. J. Wort, *of Jackson county, Indiana*, March 1838.

The subject of this case is Mr. Gerardus Ryker, of Jefferson county Ia., aged 71 years. He is a man of good habits, and has always enjoyed good health, except an attack of white swelling in both legs, about the time of puberty.

About two years ago, he received a severe contusion on the inferior maxillary bone, by the falling of his horse on the ice, which he thought at the time, had fractured the jaw. In a few days he recovered from this injury, and had forgotten the circumstance till about five months afterwards, when he was seized with most excruciating pain, attended with violent inflammation and swelling of the jaw. This subsided after a few days, by the use of the topical vapor bath, leaving a knot about the size of a small bullet, on the exterior surface of the right side, midway between the centre of the chin and the angle of the bone, apparently immovable. This continued to increase gradually, with occasional paroxysms of severe inflammation, and excruciating pain, till about six months since, when the pain became continual and lacinating, frequently producing severe spasms, with continued fever and constipated bowels. The tumor meanwhile rapidly increased; he had consulted many surgeons, but they all considered his case as hopeless.

In January last, Dr. W. Davidson, of Madison, a graduate of Edinburgh, and a gentleman of fine medical acquirements, was attending to his case. I was written to by the Doctor for my opinion and advice, and shortly afterwards was called on to see the patient. I visited him on the 19th January, they having put off calling on me for some time after receiving my answer to Doctor Davidson's letter, believing him to be in a dying condition.

I found him very feeble, emaciated, and haggard in his appearance, but he became much animated, and joyful on my arrival; so great was his anxiety, and strong his hopes that I would ope-

rate on him, and give him the only remaining chance of life, or terminate his protracted and unsupportable sufferings.

The tumor was an enlargement of the inferior maxilla, and a change or softening of its substance; the enlargement extended from the neck of the condyloid process to the centre of the chin, on the one hand, and up to the zygomatic process of the malar bone, on the other. From the right ear it reached to within one inch to the left of the trachea, projecting outwardly nearly two inches, and inwardly under the tongue to near the centre of that organ. Below, it involved the throat, pushing the hyoides three-fourths of an inch down to the left side, and compressing the external carotid artery to near its union with the internal carotid. It interrupted his speech, deglutition, and respiration very much, so that at times he was threatened with immediate suffocation.

I waited till next morning to deliberate on the matter, and from his strong entreaty and perfect resignation to the result of an operation, I concluded to perform it the next day. I therefore called on Doctors Davidson and Hall, of Madison, Ia., to assist in the operation. Having premised a gentle aperient the night before, andgiven him a grain of morphine half an hour previous to the operation, he was laid on a table with his head near a window, with a mattrass under him. I stood on his right side, and one assistant on each side of the table, provided with nothing more than an ordinary pocket case of instruments, sponge, water, &c. I commenced the incision by cutting down to the solid tumor, extending from the tragus of the ear to within one inch of the centre of the chin, being as far as the tumor reached in that direction. Another incision decussated the first at right angles, each being seven inches long, being just the diameter of the tumor. I then carefully dissected the skin from over the tumor, in four angular flaps, cutting as close as possible to the skin, leaving all muscles &c., with the flaps. I then began to dissect the tumor from above, near the malar bone, keeping close to the tumor. Inwardly, there was nothing but the lining membrane of the cheek left, as the teeth were all gone. I next cut through the jaw bone at the chin, and found it (as I hadanticipated) soft and brittle. I next dissected out the process of the tumor which extended under the left side of the throat and over the trachea. I had frequently to stop to restrain hemorrhage. The small

vessels were generally secured by tortion, and the wound cleansed of blood, and the discharge from minute vessels restrained by the application of a solution of kreosote, one part to fifty of water, (an application which I use in many surgical cases to advantage.) I now dissected the tumor from the carotid artery and jugular vein; the principal part of the parotid gland being involved in the tumor, it had to be removed. Dissecting round and leaving the principal branch of the internal maxillary artery and the temporal artery unhurt, I sought for the inferior maxilliary artery and vein, to take them up before they were cut; the vein was anterior to the artery and very large, being about the size of a turkey quill. I put a ligature round it close to the tumor and cut it, to give room to search for the maxillary artery, but as soon as I cut it, the blood regurgitated from the jugular vein as thick as a quill, and the patient being much exhausted, fainted. We then had to restrain the hemorrhage with a sponge, wetted in a solution of kreosote, till he was resussitated by proper stimulants. This vein retracted and could not be secured till the tumor was removed, or part of it at least. I then at one stroke of the scapel, took off so much of the tumor as was dissected loose, and cut through the maxillary artery, which had been drawn so far out of its proper place by the tumor, that it retracted as soon as bisected, and was so contiguous to the carotid, and such a profusion of blood, that securing these vessels was a most difficult part of the operation. These secured, I proceeded to dissect out the balance of the tumor with the jaw bone.

I cut through the bone again at the neck of the condyloid process. The dissection completed, the wound was washed out with kreosote solution, and the flaps brought together and secured by the interrupted suture covered with a fold of patent lint, and surmounted by a plaster of simple cerate. then a compress of raw cotton to fill the vacancy and keep the integuments in juxta position with the parts underneath secured with appropriate bandages, and put him to bed and gave him a little wine and water occasionally. During the operation and afterwards, we gave him paregoric, hartshorn, and spirits of cinnamon. In three hours he recovered from exhaustion, and reaction took place with considerable fever and some hemorrhage. I allayed his fever with cold water, and arrested the hemorrhage by kreosote solution and a compress. In

three days he could walk about, being free from pain, and able to eat and talk. I left him in charge of Doctors Davidson and Hall. Hemorrhage took place pretty freely on or about the eighth day, from rubbing the wound, and probably tearing away some ligature, but this was even of benefit, as it prevented or restrained all inflammation.

I visited him five weeks afterwards, and found him able to walk about the yard; with good appetite and spirits, and the wound quite healed up. There is quite a chasm instead of an under jaw. After all the blood was washed out of the tumor it weighed three-quarters of a pound. Query, would a strict depleting course and antiphlogistic treatment with a seaton drawn through the tumor at an earlier period, or taking up the inferior maxillary artery, have succeeded in arresting the pain and growth of the tumor?

COMPOUND AND COMMINUTED FRACTURE, RUNNING INTO THE JOINT, OF THE UPPER PART OF THE ULNA; REMOVAL OF SEVERAL INCHES OF THE BONE; RECOVERY. By Dr. S. M. Meek *of Tuscaloosa, Alabama*, March 1838.

A negro boy, 10 years old, while driving the horse in the cotton mill of his master B. W. had his arm caught and crushed between two cog-wheels. When I arrived two or three hours after the accident, I found the arm in a condition that suggested to the bystanders the necessity of immediate amputation.

The *Supinator iongus, the Pronator radil, Brachialis internus, the Ulnaris externus* and other muscles with the integuments were contused and lacerated, and the upper portion of the ulna and the olecranon were literally mashed to pieces, and the part forming the elbow-joint, separated from the body of the bone. The radius appeared to be but little injured, not broken, but the capsular ligament torn, so that the synovia was discharged, the forearm hanging almost pendulous. After deliberation, I determined to attempt saving the arm. I laid open the integuments, &c., so as to reach the sound part of the ulna, sawed off the fractured fragments, say, between three and four inches, removed the part forming the joint and the olecranon, and dressed by means of ligatures and bandages. Considerable sloughing occurred but

the wound soon put on a healthy appearance, and healed kindly, so that in about 10 weeks it was nearly well. In two or three months longer he could use his arm, and at this time can work with axe, hoe, &c. almost as well as any other boy of his size.—The accident happened in December, 1836. At present, 15 months afterwards, he shows but little infirmity.

PERITONEAL ENTERITIS, SCHIRRUS OF THE COLON, TUBERCLES OF THE ABDOMINAL AND THORACIC VISCERA—DEATH—DISSECTION. By W. J. Barbee, *of Indianapolis, now of Crawfordsville, Indiana*, May 1838.

J. G. B., age 52.—Nervo-Sanguineous temperament, enfeebled constitution, sedentary habits of life, predisposed to phthisis, was attacked on Wednesday 11th of April with an acute pain about the first lumbar vertebra extending into both lumbar regions.

For several weeks he had complained of a slightly painful sensation about the kidneys, and labored under some retention of urine, with ardor urinæ. The pain now extended across the abdomen, was intermittent and spasmodic, relieved but slightly by pressure. Some tenderness of stomach, pulse* 80, full and compressible. Tongue has a thin white coat. Bowels obstinately constipated; liver, as for years past, appears to be extremely torpid.

I commenced the treatment of this case by the application of cups over the two or three upper lumbar vertebræ and the administration of a dose of pretty active cathartic pills, ordering fomentations to the abdomen in case of a continuation or increase of pain.

Thursday—5 o'clock A. M.—Medicine has had no effect upon bowels, patient has vomited several times during the past night, but ejects nothing but a colorless, insipid fluid. Pulse 84, somewhat corded, tongue and mouth dryer.

I was about administering a small portion of denarcotized laudanum, but having learned from the patient that the weakest dilution, or any preparation of opium hitherto tried, would make

*Mr. B's. natural pulse was 60.

him delirious, I desisted, and gave him nothing but warm gruel, with a hope that catharsis would follow in a short time.

Stomach was quieted for a few minutes, and the patient was entirely easy, but before a half hour vomiting recommenced and the gruel was thrown up. Siedlitz powders were next given, but to no effect. Oil and turpentine were then administered, and remained on the stomach nearly two hours, finally ejected, at least a good portion thereof. A mustard poultice was applied to the epigastric region and the patient was entirely quiet for an hour.

3 o'clock P, M.—Injections, no effect. Ordered a blister, but previous to its application requested a consultation with Dr. Sanders and Mothershead (my former preceptors, and gentlemen of very respectable standing in the medical profession.) Upon consultation, the warm bath was ordered, blister applied to the stomach, and calomel in ten grain doses repeated every four hours.

Friday—7 o'clock, A. M.—Blister has drawn well, no motion of the bowels, vomiting allayed in some degree, pain in the bowels, pulse 80, tongue dry, edges red—continue calomel and kept up discharges from blister.

3 o'clock, P. M.—Several other physicians called in consultation, determined upon trying the efficacy of an effervescing injection, but this had no other effect than to bring away a few small sciballæ. Drs. S. and M. continued in attendance with myself.

7 o'clock, P. M.—Pulse 85, tense, no vomiting, tongue dry and redder than in the morning, bowels tumefied and painful, pressure upon them has little or no effect. V. S. 16 oz. pulse became softer, fomentations to abdomen.

11 o'clock, P. M.—Croton oil 4 drops in pills, one every hour, no effect; injections of Sol. Tart. Antim. bowels became softer and patient easy, slept two hours.

Saturday—6 o'clock, A. M.—Senna and salts, two doses, ejected by vomiting.

2 o'clock, P. M.—Introduced a gum elastic tube fifteen inches up the colon, and injected a quart of warm water. This produced two or three small fœcal discharges, and bowels became softer and less tumefied.

7. o'clock, P. M.—Blister 10 by 12 inches to the abdomen, mucilaginous drinks, Ol. Ricini to be taken at 10 o'clock.

Sunday—8 o'clock A. M.—Small discharge of black fœces of consistence of thick mush. Blister drew well, kept up discharge, one or two injections by the tube, during the day.

4 o'clock, P. M.—Improving, bland drinks.

Monday—4 o'clock A. M.—A good, large bilious discharge from bowels.

From this time the patient convalesced, and enjoyed a fine prospect of recovery until the succeeding Sunday, at which time he relapsed, and all the former symptoms made their appearance. He was bled, cupped and blistered on the abdomen, and took large and repeated doses of calomel, together with nauseants and other febrifuge medicines. Notwithstanding these means the abdomen continued to dilate till it became quite tympanitic. Gas could be distinctly heard passing along the track of the intestines, and the patient complained of severe intermittent pains, which appeared to be confined chiefly about the umbilicus.

Injections of sugar, salt, warm milk and water, and an emulsion of assafœtida were freely administered by me out of a large flexible tube eighteen inches in length. These seemed to palliate the symptoms considerably and procure sleep for a few hours, but in a short time the various symptoms reappeared in all their violence, and finally became greatly aggravated. The Veratria ointment was applied to the abdomen and Veratria pills were administered, but to no effect. As a dernier resort the trocar was introduced two inches below the umbilicus, and a considerable amount of gas, a few ounces of purulent, bloody serum, together with a small quantity of fœces were discharged. In a few minutes the patient complained of most excruciating pain in the penis which shortly extended itself to the bowels and then became concentrated. A cold clammy sweat broke out upon the surface of the body, the pulse became weak, respiration labored, and in ten hours from the time of the operation he expired.

Autopsy.—Fifteen hours after death.

External appearance. General and great globular distension of the anterior parietes of the abdomen, no unusual general emaciation.

Internal appearance. Cavity of the abdomen. Stomach dis-

tended; peritoneal and muscular coats healthy; mucous coat inflamed in several patches; omentum two-thirds obliterated. Intestines, with the exception of the descending portion of the colon and rectum, enormously distended by gas, widely diffused hyperæmia of the peritoneal tunic; adhesions to the posterior walls of the abdomen; extensive effusion of coagulated lymph and purulent serum; tubercles studding the descending portion of colon, parts of the mesocolon and rectum, the latter bowel somewhat contracted; mucous coat of the intestines healthy. At a point in the colon about twelve inches from its junction with the rectum a stricture was found, formed by a schirrous tumour, growing from the sub-peritoneal cellular coat inwards, which left a caliber of about a quarter of an inch.

The orifice made by the trocar was found in the ileum not far from its junctian with the cœcum.

Liver. Bluish tinge externally—harder than natural, several small tubercles on its surface, otherwise healthy.

Spleen. Contracted to a third of its natural size, and full of tubercles.

Kidneys. Right healthy, left inflamed, small quantity of pus flowed internally, left rather smaller than natural.

Bladder. Healthy, half filled with urine.

Cavity of the Thorax. Lungs, with several spots of inflammatory hyperæmia, a number of tubercles, varying in size, from a pinshead to a hazlenut, found in both lungs.

Heart. Some hypertrophy of the walls of the left ventricle with contraction of its cavity, an ounce of serum in the pericardium. The brain was not examined.

Remarks by the author.

It would be rather difficult to apply to the foregoing case a *single name* which would clearly indicate the existence of all the lesions discovered upon post-mortem examination, but I have chosen the appellation of peritoneal enteritis, from the fact, that the peritoneal coat of the bowels, was universally in a state of inflammation. The case throughout, was rather a singular one.

Pressure on the abdominal parietes, produced no increase of pain, and the pain was intermittent. Such phenomena are certainly unusual in a lesion of this kind. I did not observe the patient's

knees drawn up more than once or twice, throughout the attack, and as will be seen by the record, at times he seemed perfectly free from pain.

Whence came the large quantity of gas contained in the bowels? The patient took very little aliment. I think we are fully justified in the conclusion that it was secreted.

The tumor of the colon was minutely examined, and had all the characteristics of schirrus. Three of the patient's immediate family have died of phthisis.

HERNIA TREATED SUCCESSFULLY WITH DR. CHASE'S APPARATUS. By. Dr. Thomas J. Orr, *of Cincinnati.*

In reporting the following cases of Hernia that have been *radically cured* by the use of Dr. Chase's instruments,—I shall not attempt to give the progressive effects of the treatment in each particular instance, but merely the general state of the patient; the condition of the parts concerned when the instrument was applied, and the ultimate results. There could be much said of great practical interest, in relation to the *modus operandi* of these valuable instruments; of the surgical skill, and experience requisite to apply and manage them with success;—the philosophical principles of the cure &c. &c., but this I shall reserve for a paper, when I have had more extended opportunities of observing their effects.

Case 1st. Master Henry, aged eight years, a finely formed lad, with a vigorous constitution; has inguinal hernia of the right side, of four years standing;– cause of the accident unknown: external ring large and relaxed; tumor very large and tender to the touch.

June 22d 1836, saw the patient for the first time in company with my friend Dr. Crittenden, who was so kind as to reduce the bowel and apply the common inguinal truss. June 26th, visited the patient, and found that the tumor had not descended. October 10th, saw the boy, and was told by his mother that the retention had been perfect since the time of the first application; removed the instrument and compared the ring with the opposite;

found that it had contracted to about the same size, but was firmer, and offered more resistance to the fingers; the instrument remained off for several hours, without the slightest tendency to descent of the tumor; but as the boy was about to start with his parents to Philadelphia, I advised the use of the truss for two months longer; at the expiration of which time it was laid aside. Six months after he returned, and on examination I ascertained that the sac was obliterated at the neck; was filled with fluid and would flow under the finger. I gave two or three brisk cathartics which carried away the water; the patient remains perfectly well to the present date.

Case 2d. Inguinal hernia of the right side. Mr. ——— aged thirty, (by profession a pilot,) good constitution, had inguinal hernia for three years, caused by the descent of the testicle of the right side, which protruded partly through the external ring, followed by the hernial tumor which filled the entire Inguinal canal. The testicle could be returned with the tumor into the abdomen. March 20th 1837, forced the testicle through the internal ring, returned the bowel and applied Chase's common Inguinal pad. July 10th, saw the patient, the testicle had gravitated to its proper place in the scrotum along side of its fellow; removed the instrument, found the tumor did not descend, but as there was some pain and weakness, the instrument was re-applied. April 6th, 1838, removed the instrument, and on examination found that there was not the slightest tendency to descent of the tumor; no pain or sense of weakness in the part, and that there was a condensation of cellular matter about the ring, and apparently coalescence of the folds of the sac, which rendered it much firmer than the opposite one. Since the removal of the instrument, the man has performed a trip as pilot from Cincinnati to New-Orleans, without the least evidence of a return of the disease.

Case 3d. Mr. G——, aged thirty-five, a merchant; constitution vitiated by habits of intemperance, had inguinal hernia of the right side, of ten years standing. The first discovery of the protusion, was in the morning, after having spent the night previous in laborious dancing. He immediately applied to a surgeon who treated him for several years with the most approved instruments, but without any other effect, than merely to restrain the intestines

from descending into the scrotum. In this condition, we were called to see him December 15th 1836, reduced the bowel, and applied the common inguinal pad, which was worn day and night for four months; at this time, the patient anxious to know whether he was well, took off the instrument, but in two or three hours he felt the pain which is experienced when the tumor is about to descend; and instantly applied the truss, which was not removed for six months longer, when it was finally laid aside.

Case 4th. Mr. I.——, aged twenty-one, of remarkably healthy constitution; followed the river as an occupation:—has inguinal hernia of the right side, caused by falling with his abdomen across the edge of a flat-boat with so much violence as to force a portion of the intestine into the scrotum. In a few hours symptoms of strangulation supervened, but we were able to reduce the bowel without an operation. Chase's Inguinal pad was applied February 14th 1837, and worn until the following June, when the patient being radically cured, it was laid aside.

Editorial Note.

Dr. Orr has appended to the foregoing cases, a tabular view of 21 cases, which he has treated, but want of space compels us to omit its publication.

The instruments of Dr. Chase have been so long before the profession, and are so generally known, that it is quite unnecessary to say any thing in commendation of them. The cases reported by Dr. Orr, the agent for the State of Ohio, afford additional proof, if any were wanting, of their value in the treatment of hernial disorders. Several of these cases we have witnessed, and we have no hesitation in affirming, that the cures are as perfect as it is possible for nature, assisted by science and art, to make them. Not only are the patients "healed," but the side originally involved, appears really more perfect, and capable of greater resistance than the opposite one. To bring about these effects much skill we presume is required in the application of the instruments, which, in the generality of cases, should only be made by those who have proper tact and experience. S. D. G.

ENCEPHALIC DISORDER, WITH APHONIA AND IMPAIRED INTELLECT, APPARENTLY FROM WORMS. By Dr. J. S. Malone, *of Athens, Alabama, April* 1838.

On the 14th of January 1838, I was requested to visit Miss S. B. G. aged eight years, who had been seized on the 11th, with high fever and dull headache, itching of the nostrils, and complete aphonia. I found her with hot skin, dry and red tongue and fauces, dilated pupils, insensibility to light and speechlessness. Her pulse was 124 in a minute, and her breathing short and quick.

Treatment. Bled her to 16 ounces, and gave an emetic, which brought up a quantity of bile with 4 large lumbricoides. A copious perspiration followed and her pulse came down to 88. She then took 20 grains of calomel, 8 of jalap and 20 drops of the oil of turpentine; followed in 13 hours, by the internal use of castor oil and turpentine, with other cathartics, and injections. Free alvine evacuation at length was effected, the discharges were dark and offensive, and contained three additional lumbricoides. Subsequently she was cupped, blistered, nauseated, and took mercurials. On the 27th, a fortnight from the onset of the disease, her breath indicated a slight salivation, and she seemed to be convalescent. February 9th, she was able to sit up, and thenceforth gained flesh and strength rapidly—27th, she was walking about, and attempting, like a child, to talk, but seemed nearly idiotic.

REMARK.

It is to be regretted that Dr. Malone, who wrote on the 16th of April, did not bring down the history of this case to that date. It may be presumed that his patient continued to recover. He asks in a postcript, whether the impairment of the functions of speech and intellect probably resulted from invermination? We suppose it did, as the Aphonia was one of the first symptoms. D.

Art. II.—Endemic Fevers of New-York.

Some account of the Medical Topography, Climate and Endemic Fevers, of the Western part of the State of New-York. Extracted from a Discourse delivered before the Cayuga Medical Society, March 1837; By F. H. Hamilton, M. D.

The State of New-York, is divided geographically by several ranges of mountainous elevations which pass nearly east and west, through the southern tier of counties, and by the western branch of the Catskill, which intersects these at almost right angles, crossing the Mohawk at Rockton. The surface of the country north and west of these lines, has the aspect of its inclination chiefly north, most of its rivers emptying into Lake Ontario, and constitutes, according to our division, a portion of the middle territory. This section of the State is interspersed with numerous lakes and many extensive marshes. The principal lakes are, Chataque, Hemlock, Conesus, Honeoye, Canandaigua, Crooked, Seneca, Cayuga, Owasco, Skaneateles, Otisco, Onondaga, Cazenovia, Oneida, Otsego, Erie and Ontario; besides these, there are numerous other smaller basins of water. The principal marshes are the Tonewanto, Cayuga, Onondaga, Newton, Sodus, Catharines and Braddocks Bay: most of these lie along the outlets of small Lakes; some of them, as the Onondaga and Cayuga, cover several thousand acres. The former being about seven miles in length and three in its greatest breadth; the latter about eleven miles in length, and two and a half in breadth.

Notwithstanding the great amount of surface which is thus covered with water, we are in a great measure exempt from the miasmatic fevers as they appear in the more western states, or the interior of the middle territory. The surface of the country is more than usually undulating, considering its geological structure; the lakes though sluggish, are generally remarkably clear and deep; and the climate, though proverbially inconstant, is colder than in the same latitudes farther west, owing to its great northern and western exposure, and its chain of mountains on the south and east, which intercepts the warmer breezes of the southern and eastern latitudes. Eastern winds are of rare occurrence, and generally bring rain or snow. The southern winds are more frequent, and invariably damp and chilling for the first

forty-eight hours, blowing during this time from the frosty summits of the Susquehanna and Alleghany mountains. When the air reaches us from the Gulph of Mexico and tropics, a rapid change takes place, the cold being succeeded by a genial and often sultry warmth. The prevailing winds are north and west, which are cool and invigorating, and are always hailed as the harbingers of a clear sky and healthy air. The Thermometer generally ranges in winter, from 10° below zero, to 50° above of Fahrenheit—in summer from 50° to 96°.

These are the most important circumstances which have always rendered the Lake country, or pleasant Valley, as the Indians termed it, remarkable for its salubrity. The Iroquois, the ancient lords and occupants of this soil, were a race distinguished above all other aborigines of the continent, no less for their prowess in war, their manly vigor and strength, than for their superior intelligence in council. The Tuscaroras only among them, were considered effeminate; but this tribe migrated from the south, and received from the land of their origin, an hereditary physical and mental inferiority. The early settlers, although they chose to locate along the valleys and in the vicinity of lakes, were hardy and robust: very few, comparatively, contracted the fevers peculiar to new countries, and they were seldom characterized by the same virulence, which at present distinguishes the fevers of Illinois and Missouri. The only remarkable exceptions have occurred in the years 1796, 1801, 1811, 1821–2; each successive epidemic having returned at somewhat regular intervals, varying from five to ten years. The fevers of 1811, were followed in 1812–13 and 14, by the pneumonia typhoides, a new and fatal epidemic, whose terrible ravages were almost confined to the nothern states. From this time until 1821, the endemic fevers seemed almost extinct, when they again returned with unparallelled severity and malignancy. During the last seventeen or eighteen years, their frequency and fatality have gradually abated, and they have now nearly disappeared from the more healthy localities, and are only to be found lurking in the most intensely miasmatic districts. And as the cyles of their return have nearly twice gone by, and the sources of their development are mostly extinguished, we may, with gratitude, hope that we shall no more be awed by their scourging visitations. The few rare cases which now and

then occur, assume chiefly the type of the mild tertian, occasionally the quotidian, rarely terminating in the continued and typhus. They mostly prevail in the autumn, in the months of September and October; the cases which accasionally occur in the spring, we have many reasons to suppose are the consequence of a poison imbibed the preceding fall, having remained latent during the severity of the winter, which season is peculiarly unfavorable to its development. In the summer months, they generally assume the remittent and continued type, and are liable to terminate in a typhoid state.

In pursuance of our plan, we must here be permitted to reduce the hitherto general description, to a more minute analysis of the minor sections, and exhibit as far as practicable their local peculiarities, tracing from these, in the positive relation of cause and effect, the most prevalant type of their fevers.

The broad basin of the Mohawk, often inundated by the spring floods, from the highlands at its source, and extending many miles into the argillacious soil of the middle territory, is, at no time, scarcely less healthy, than the summits of the neighboring Catskill. A few cases of intermittent occur every year along its banks, and particularly at Utica, in the vicinity of which is the extensive Oneida jungle, the effluvia from which are often floated over it by the prevailing west winds, producing, since the intermediate forests have been removed, considerable autumnal intermittent fever, particularly in the west part of the city which lies low and most exposed; and even here during the last few years, it has again become very rare.

Syracuse, situated in the very midst of a salt marsh, is bounded on all sides except the north, by considerable hills; a low mucky soil extends in this direction to the shelving shores of the Onondaga Lake. By the mixture of its own fresh water with the numerous salt springs in its vicinity, it becomes the fertile source of miasmatic poisons, and has always been the very hot-bed of pestilence. The inhabitants are therefore more or less subject to intermitents and remittents, at all seasons of the year. The fevers often terminate rapidly in typhus, indicating a great concentration of the miasma. Many who become residents, acquire the same acclimation by a series of chills, as do the settlers in new countries. In 1821–2, the prevailing epidemic showed itself with

unusual severity at Syracuse, and its neighboring village Salina. At Syracuse, many died suddenly, the disease assuming often the most distructive characters of Yellow fever, being accompanied with a deep yellow skin and vomiting of black blood, when fatal generally terminating in three or four days. At Salina, several deaths occurred at the same time, with singular phenomena, complicated with great determination to the head or bowels, and in the latter case followed by bloody dejections. The Cholera also, which seems to seek out the same localities with miasmatic fevers, made fearful havoc, both at Syracuse and Salina.

In the county of Cayuga, we occasionally meet with these fevers in the healthy yeomanry of the southern towns, but they prevail endemically only along the northern outlets of the Lakes; which uniting, form the slow and almost stagnant Seneca; which from its numerous, and partially drained bayous; its broad and half inundated marshes, sends forth an eternal miasmatic fog, stamping the character of all the diseases in the vicinage. At Montezuma, situated on the marsh of the same name, the declination of the river is scarcely one inch per mile; and its channel can hardly be distingnished from the marsh itself, as it winds its sluggish course through the exuberant jungle growths. Some attempts have been made to drain and till these marshes, more rich and fertile than the celebrated fields of Argolis, but they have hitherto failed, and it would require, we fancy, a more potent than even the famed son of Jupiter and Alemena, to accomplish such an enterprize. Salt springs also abound at Montezuma, which tend still further to counteract the miasm. In 1821, the congestive intermittents proved very fatal to the intemperate Irish, employed on this section of the works, sweeping them off in scores: at Jacks reefs, lower down on the same river, additional hands were required to pump the water from the Canal as it oozed thro' its loose banks, and such havoc was daily made that, for a time, the contractors were compelled to relinquish the work for want of laborers. Their fevers, are of course, of a low character, seldom assuming the high grades of synocha. They generally present a marked predominance of gastric and hepatic derangement, seldom terminating fatally in the first attack; but by repeated returns, the stomach and liver become essentially impaired, and the patient ultimately dieing with chronic dyspepsia or tuberculous liver.

At the Villages of Port Byron, Weedsport, &c. they constitute the prevailing diseases, and in a great measure prevent the rapid settlements, which many other local advantages might seem to encourage.

Auburn, situated on the Owasco outlet, sufficiently remote from the lake not to feel its malignant influence, the surrounding country mostly elevated and airy, has always enjoyed the most remarkable immunity from fevers. In December 1806 at Palmyra, and in many other places in general considered healthy, a fever of a typhoid character prevailed with great fatality, being accompanied with great prostration, coma, delirium, subsultus tendinum, hiccough, &c., those who died, seldom surviving the 3d or 4th day; but at Auburn the fevers were no more than usually malignant. The pneumonia typhoides, which in 1812, 13 and 14 swept over the country through its breadth and length, unstayed by human skill, scarce found a victim in our then new but populous village. Numbers were attacked, in and about the limits of the town, but in a form so much mitigated as to be easily controlled by the prompt application of the proper remedies. At east Cayuga, where a small garrison of United States troops were for a time quartered, amounting to about thirty, it showed itself with great severity and fatality. The prevailing epidemics of 1821 and 2, were equally unknown with us, nothing very unusual being presented during these years, in the general character of our fevers. And with the same perfect security did we stand and contemplate the terrible havoc of the eastern pestilence in our sister villages. For days its chariot of death rolled heavily along our borders; the tears of the disconsolate widow and bereaved orphan, marked its track. We made no *cordon sanitaire*, but the shield of God was about us; we felt not its iron grasp nor witnessed its fearful scenes. But a few years since, when our population numbered over 4000, during three months, the village burial ground was not opened nor a grave dug, nor the sound of the funeral bell heard in our streets: such is the remarkable salubrity of this favoured spot. At present, miasmatic fevers are almost unknown, such as do occur in the spring and autumn, are mostly in residences situated along the Owasco river, and are mild and easily subdued. Even those portions of the town will be rendered much more healthy by the completion of the splendid hydrau-

lic works, undertaken and now nearly accomplished by its enterprising citizens. By which improvement, the river has been very much enlarged and deepened, and made to cover a considerable extent of low bottom, from which at dry seasons of the year, more or less miasmatic poison was extricated; and by which as perhaps a no less beneficial result, the numerous and crowded little huts along its course through the lower parts of the town, are in the way of being removed and replaced by the company, with larger and better constructed buildings, for various hydraulic purposes. The erection of a large and commodious stone market, which, as a specimen of architecture, is unsurpassed by any building of the kind we have ever seen, must also be regarded as a hygienic circumstance of vast importance, by leading to the removal to remote parts of the town, of the several lay stalls, formerly built over different parts of the river, the offals from which were thrown into the stream and floating against its banks, tainted the air with noxious effluvia. We are not ignorant, while making this statement, of the recent laborious researches of Parent Duchatelet, in and about the environs of Paris; in the course of which he visited "that most abominable sewer-like stream, the Rivere de Bierre near the Gobelins" upon which were situated nearly all the slaughter-houses of Paris, and especially that "incomparable stable of filth and nastiness" the enormous *chantierres d'quarrisage* of Montfaucon, where not only 12 or 13,000 horses, 12,000 dogs and 6,000 cats are killed yearly, but almost all the ordure of Paris is collected together." And yet he assures us of the remarkable healthfulness of the families who are employed, and who live in the vicinity. He tells us of the "*sante la plus florressante*" of the men, the "*sante brillante*" and the "*fecondite remarquables*" of the women, and the "*force et mine admirables*" of the infants, who are sometimes cradled "*dans c'interieur d'une carcase, comme dans un bureau ?*" We have read the report of M. Duchatelet with interest and attention, but confess ourselves not at all convinced of the accuracy of his statements, or the correctness of his conclusions. A statement however of our grounds of dissent would transcend the proposed object of the present dissertation. We have dwelt the more particularly upon this point, because we believe that physicians and others who are made the conservators of the public

health, are not sufficiently aware of the harm of those and similar establishments, and therfore permit their location in the populous parts of towns, to the great detriment of the comfort and healthfulness of the whole neighborhood.

At Seneca Falls, Geneva, Canandaigua, &c. endemic fevers are more common than at Auburn, yet scarcely less mild. In 1792, during one of the fall months, every person, male and female, in the village of Geneva was sick with fever except one, a young woman.

Rochester in its locality and diseases resembles Utica. The adjacent country is low and swampy, into which the western portion of the city partly extends. Intermittent fevers are however already becoming less common, and will still continue to decrease as the lands in the vicinity, yet new, become more drained by exposure and cultivation.

At Buffalo, they prevail chiefly in the lower parts of the city, where, from the rapidly increasing population, the streets have been extended into the very midst of the marshes before they were drained or hardly cleared. Many houses in the suburbs are erected on piles, and the green frog is permited to croak his dismal song unmolested in the fen beneath. The cholera made here a fearful tarry, and at no place were its victims more violently attacked.

The few cases of endemic fever which occur at Oswego are generally near the southern limits of the town, where the ground is cold and marshy, and seem not to depend upon their vicinity to the lake, for in the more populous parts of the village, or the harbor, its occurrence is comparatively rare; a fact of some importance as indicating the real estimate we are to place upon such collections of water in the production of such fevers.

North of Oswego, towards the St. Lawrence, the latitude is too high for the developement of miasma in a much concentrated form. The Black river in Jefferson co. which brings from the mucky soil, from which it has its origin, abundance of vegetable mould, and throws it at certain seasons upon its low bottoms, would doubtless prove a fruitful source of malaria, and of high grades of intermit tent and remittent fevers in a more southern climate. But few cases occur, however, either at Watertown, or Sacket's Harbor which stands on the Bay at the mouth of the river.

Having now given a cursory glance at the principal localities in the state of New York, where endemic fevers more or less prevail, and described as far as our limits will permit, their peculiar geographical features, and the general character of their diseases, we retrace our steps to mark the therapeutic treatment applicable to these different sections. For the better attainment of which purpose, we propose to arrange their localities in three classes: beginning with those in which the malaria appears to be most abundant. In this class we place Syracuse, Salina, Weedsport, Port Byron, Montezuma and the lower parts of the city of Buffalo, with such other places not enumerated, as are similarly situated. Our description of symptoms and also of treatment, must necessarily be brief: indeed we prefer always the statement of a few striking diagnostics, and the selection of the most valuable and best attested remedies, to an endless assemblage of phenomena and a learned enumeration of obsolete and useless recipes.

In the districts just mentioned, the fevers, it will be seen, are characterised by a marked predominance of hepatic and gastro intestinal derangement. The attack is often sudden; and whether the fever be about to assume an intermittent or remittent form, it commences with a general lassitude slight nausea, constipation, head-ache, vertigo, and often an obtuse pain in the right hypochondriac region. These symptoms are succeeded more or less rapidly by a violent chill, which is soon followed by a burning fever, attended with nausea and sometimes vomiting of a green or yellow bile, throbbing pain in the head, bounding pulse, urgent thirst, restlessness, &c. If the attack be only a paroxysm of intermittent, the skin after a time becomes moist, and the febrile symptoms abate or almost entirely disappear. If, however, it pass into a remittent type, no perspiration occurs, the skin becomes more heated, the eyes suffused, the sleep disturbed, the fever continuing to augment and during the night being attended with slight delirium; towards morning a remission of all the symptoms takes place; in the afternoon a second paroxysm occurs, attended with more violent symptoms and is in the morning followed by another remission. After a continuance of these phenomena, during four or five days, the countenance acquires a more decided jaundice hue; the matter ejected changes from a yellow to a brown color; the tongue and teeth become loaded with a dark

fur; the delirium increases, a clammy sweat appears on the surface, having a peculiar cadaveric fetor, subsultus tendinum and hiccough succeed, the patient sinks into coma, and death closes the scene.

However much Broussais and his followers may denounce the use of emetics and calomel as "unpathological unscientific and horrible" we believe them in such an assemblage of symptoms wholly indispensable. They are the Ajax and the Hercules in the hands of the skilful physician, and must be employed if he would conquer this formidable fever. The timely administration of an ipecac and ant. emetic, followed after a few hours by a brisk cathartic of calomel and jalap, will often at once disgorge the liver, evacuate the alimentary canal and restore to a healthy action the whole glandular system. Generally a single liberal bleeding may be premised, and occasionally, when the force of the pulse will permit, in the subsequent course; but we must constantly bear in mind in these cases, the tendency to prostration and a typhoid state, and must, therefore, endeavor neither to fall into the excessive purgation of Hamilton, nor the indiscriminate sanguineous depletion of Rush. After a thorough evacuation by emesis and catharsis, we should stay our medicines a little and observe their effect. The system of goading the stomach constantly and unremittingly, we deprecate as unscientific and irrational. A temporary suspension of hostilities should occasionally be allowed, that we may give the enemy an opportunity to evacuate the garrison quietly; and the interval of truce may well enough be filled up with soothing and demucent articles, such as gum arabic water, rice water, &c., and external evaporants or irritants, according as special symptoms may indicate. If, after a proper interval, the disease appear still unsubdued, the attack may be repeated in such a form as shall be adapted to the character it now assumes.

If the disease be not arrested and the stage of prostration approach, no time can be lost; a few hours may place the patient beyond the reach of human skill. Quinine and opium are now the anchors of hope; when timely cast, they will stay him in the ebbing flood of life, when all others fail. From 1-2 to gr. j. of opium every six or eight hours; and quinine according to the indications of the pulse and susceptibility of the stomach. As ad-

juvants, we may employ Madeira wine or Brandy, carbonate of Ammonia, Fowler's solution, beef broth, or essence of beef. In the last of which we have perhaps the most concentrated and most convenient possible form of nutriment: consisting of pure serum, and ozmazome the essential pabulum of all animal foods. It is prepared as follows: A piece of the surloin of a fat beef, two or three days killed, cut into small pieces about the size of walnuts, and put into a tightly corked junk bottle; place the bottle in a kettle of cold water over a fire, and let it boil half an hour. From a pound of meat thus boiled, half a teacupfull of rich soup may be obtained; strain it through a coarse muslin cloth, add a fraction of red pepper and salt, also a little mace. *Medium dose:* A desert-spoonfull every half hour.

In the second class, we place Utica, Seneca Falls, Rochester, Lockport, Oswego, &c. The fevers in these localities differ from the same in the places before mentioned, by assuming a less bilious and more decidedly inflammatory character. The onset is generally not less rapid than in more miasmatic districts, but is seldom preceded by that *extreme* sense of langor and debility, consequent upon a gradual derangement of the hepatic function. Early local determinations are the most characteristic features. Inflammations of the brain, lungs, pleura, liver, bowels or some other important organ, being almost invariably present. The functions of the liver are often no more impaired than the functions of every other organ. Now and then the fever is of a mixed character, exhibiting either through its whole course, or only occasionally, especially after a long continuance of the febrile symptoms, a strong tendency to disease of the liver, the stools varying from almost black, to dark green or yellow; the countenance becoming ieterode, and the tongue acquiring a brown fuliginous fur. The most common termination of the fever however, if not speedily arrested, is in local congestion and effusion. The approach of this stage is characterized by a train of symptoms, varying according as one or another organ is the seat of the effusion. When the brain is about to become the seat of this lesion, it is indicated by diminished force of pulse, torpor of bowels, dull, obtuse pain in top or back of head, accompanied with a sense of weight or distension; a tendency to stupor, slight mental aberrations on being suddenly aroused from sleep,

which rapidly passes into almost total insensibility, the pupil becoming dilated, and the features contracted and cadaveric. When the lungs are the organs which have chiefly suffered, we are warned of serous engorgements of the air cells and parenchyma by a sudden subsidence of the severe pectoral signs of inflammation, short and labored respiration, an abundant, liquid, transparent expectoration, loose mucous rattle and other physical signs recognized by the stethescope. When this condition after a short and severe course suddenly supervenes, the indication is fatal; medicines do neither arrest, nor even stay its uniform course. Our only remaining duty is to apprise the patient and his friends of the inevitable result, and commend him to God, the great physician of souls. When however effusions occur as sequelæ to a more protracted course, they may be presumed to be unaccompanied by those apoplectic engorgements and sanguine extravasations which are the usual concomitants of the acute form, and to be the effect alone of an excessive debility of the capillary system, a degree of lesion which is often susceptible of reparation.

In the acute stage, the leading indications of treatment are early, liberal, and frequent bleeding, followed by a single cathartic of calomel and jalap; and occasionally under peculiar circumstances and after sufficient depletion, a gentle emetic. Blisters are scarcely admissible earlier than emetics, and require the same precautions; if applied too early, they seldom fail to aggravate the general fever and local inflammation. Topical or capillary bleeding, so much cried up by the French, and lauded by many of our own writers, cannot be trusted. In large cities where the fevers seldom assume the most acute grades of local inflammation, such measures may prove valuable as adjuvants; and scarification and leeching may continue to terrify and torture their pale and exsanguineous patients; but their general introduction into these districts, will only serve to deceive the physician and pacify the patient, until fatal disorganization ensues and the fate of the patient is sealed.

In the chronic form, when the occurrence of effusion is suspected, the *methode expectante* rather than the *methode empirique* should be adopted, the transition from one stage to another being often so gradual and imperceptible as to leave the most experienced

in doubt where depletion should cease and stimulation commence. But the crisis being fully ascertained moderate excitants are demanded. Calomel and blisters here display their greatest power, the former working by virtue of its influence over the secernent and absorbent systems, the latter acting both as a revellent and general stimulant, relieving the oppressed organ, and arousing at the same time the nervous and arterial energies.

The third class includes Auburn, Geneva, Palmyra, Canandaigua, &c. Here at the present day, we are almost out of the reach of miasmata, except what the lakes and a few stagnant pools in our vicinity may engender, and this is so little as scarcely to distinguish our fevers from those which annually more or less prevail in the New England States. They cannot, therefore, be rightly considered as belonging to the endemic fevers of the middle territory, since they retain none of the essentially diagnostic marks. The chief of which is always *more or less hepatic derangement.*

We shall, therefore, only say by way of description, that here are found those fevers with which Broussais was more particularly familiar and upon which he based his doctrines of gastro enteritis as the universal source of fever. Let any one acquainted with the fevers of these places read, the general description of fevers given by Boisseau, the faithful, but not servile follower of Broussais, and he will soon become convinced that such is the fact. We do not think that in a practice of several years in this district, we have seen a single case which did not present marked symptoms in the very onset of gastro intestinal irritation. In forming which conclusion we disclaim entirely the influence of any prejudice in favor of Broussaism. Accordingly we have always adopted, to a greater or less extent the physiological practice as its advocates par excellence have termed it; and have never yet had reason to be dissatisfied with its results; (having never yet lost a patient with fever, nor witnessed a termination in typhus.) Calomel, the *sine qua non* with many, we have considered the *fons et origo mali*, and have used it with a sparing hand; and believe it the fruitful source of mucous disorganization and typhoid prostration, not to speak of the numerous other and lasting evils which it entails. We cannot surely be too severe in reprobating the horrible practice of universal salivation in our

fevers. It is now every where the prevailing axiom *proritatio salivae febres sanabant*, hence this is ever the first and grand indication. Strange infatuation! so we believe it. The cause is mistaken for the effect and the effect for the cause. Does the fever abate because the calomel salivates? Nay, the calomel salivates because the fever abates. Every practitioner of twenty years experience in this country, has seen more cases than one when ptyalism would cease upon the approach of the hot stage, and regularly return on the approach of the sweating stage, and this for several days in succession; and yet have they been totally blind to the only legitimate conclusion, and have persisted in their irrational course until the whole system was saturated, and the whole fabric of the constitution undermined.

In the early settlement of these places endemic fevers were not uncommon, and calomel seemed often essential to success. Our fathers in the profession whose grey hairs have witnessed, in sad emblem, the sear and fallen leaves of many an autumn adored its power; it was to them "the mercury," the messenger of Jove, who alone could meet the destroyer, or unstring his bow and arrest his poisoned arrows. The homage, then, they continue to pay to him is natural and inevitable. Though we venerate age and its experience, we should not imbibe its prejudices and errors. We doubt not that mercury was to our fathers as a messenger from Heaven; but the grand cause of his embassy to us has now almost ceased; let our diplomacy therefore be more measured and circumspect, lest by our indiscreet intercourse we add to the many shattered and decrepid relics, which while they live, will remain as lasting monuments of the effects of mercurial ulceration—the curse and obloquy of our science: and through succeeding generations, long as their memory is retained by written history or fire-side tradition, must cause ignorance and empiricism to triumph over medical learning and genuine philanthropy.

Auburn, New York.

Art. III.—Strictures of the Uterus.

A letter to one of the Editors containing practical remards on the treatment of inversions and strictures of the Uterus—By M. Z. Kreider, M. D.

Lancaster, Ohio, May 18, 1838.

Dear Doctor:

Being aware of the lively interest you feel in relation to the advance of Medical and Physical Science over the world in *general*, and the *Western* country in *particular*, I have thought proper, however humble the source, and unpretending the effort, to advise you of a recent movement of some of the physicians in Fairfield county. Believing as we do, that it is the imperative duty of every practitioner of the healing art, to contribute his mite to the general stock of knowledge, and being aware that this could not be so advantageously done without concert and harmony of action, a respectable number of the physicians of this county resolved to form themselves into an Independent Medical Society, for the purpose of rendering mutual aid, and of elevating the character of the profession in this community. To this end, a meeting was held on the 22d of February last, and a Society was regularly organized, entitled, "The Fairfield County Medical Association for the cultivation and improvement of the Medical and Physical Sciences." None are admitted to membership in this Society, unless they sustain a good moral character, and have studied, and been admitted, in a regular manner. There are four stated meetings in each year, and each member is required to report from time to time, all important cases which occur in practice, and essays are required to be read at every meeting, important questions are also required to be proposed and debated. At a recent meeting three essays were read, one by Doctor J. White, on the propriety of dividing the stricture in strangulated uterus, one by Doctor Bigelow, on the importance of the study of Botany to the Physician; and one by Doctor Kreider, on the history, nature, symptoms and cure of Variola, Varioloid and Vaccina.—The particular reason which induced me to select this subject was the prevalence of Small Pox among us at the time, and the little experience of the junior members of the profession in regard to its nature and treatment. The Society has created standing committees on Botany and Meteorology. The members of

which reside in various parts of the county, and are required to collect botonical specimens, and note meteorological observations, and forward the same to *Reporters* located in Lancaster, whose duty it is to properly arrange the matter thus acquired, and report the same quarterly to the Society.

As the paper read by my friend Doctor White, proposes a novel remedy for stricture of the uterus, and as it is desirable that the method he has proposed should have publicity, to the end that its efficacy may be tested, I have thought proper to subjoin an extract from his paper which I hope may not be deemed uninteresting.

"In a practice of sixteen years I do not recollect to have met with a single case of inversion of the uterus. Though, I have heard of three cases, one of which occurred in the practice of an intelligent physician; the other two was under the care of female accoucheurs, the former was immediately reduced and without difficulty, the latter, were instances of complete inversion of that organ, brought about by rudeness and violence in the extraction of the placenta. It is a matter of some surprise that accidents of this terrible nature do not occur more frequently, when we consider the number of individuals in parturition who confide the management of their cases into the hands of the ignorant. It is not uncommon, with many of those practitioners when the placenta does not follow the fœtus with that celerity consistent with their ideas of those matters, to trust less to the physiological laws of the economy governing this important process, than to their own manipulations. Apparent difficulties with them, are too frequently construed into a warrant for extraordinary and mischievous exertion, and the consequence is, we fear more frequently than is generally known, the accident now under consideration.

The reasons why accidents of this kind are not of common occurrence I conceive to be the following:—Inversion of the uterus cannot well take place when it is in a state of general contraction, it is only when it contracts irregularly, that we have fears of this accident from improper manouvres. It must be in a state of general relaxation, or the fundus and body in this condition. Now, it is a well ascertained fact, that traction by the cord, excites the tonic contraction of the uterus; and it is commonly alone depended on by the ignorant to obtain the expulsion

of the placenta. In addition, tractions made in a line with the inferior trait, and consequently at a considerable angle with the axis of the brim are comparatively little calculated to do mischief. Inversion sometimes occurs after the extraction of the placenta, and occasionally, some days after parturition, from some peculiarity in the condition of the uterus, not well understood, giving a predisposition thereto. Dr. Dewees, therefore infers, that pulling by the funis is not generally, as was believed, the cause of this accident. A case occurred to me in 1834, which seems to corroborate the Doctor's opinion. Mrs. H. in labour with her first child, suffered very much from slow and tedious dilitation of the os tincæ, the breech presented, in the first position of Baudeloque, nothing of consequence occurred until the head descended into the cavity of the pelvis, the arms were brought down without difficulty, but the head became fixed in its diagonal position, though the pains were strong, the head was ascertained to be of medium size, and the pelvis ample. Turning the face into the hollow of the sacrum and depressing the chin together with pretty strong traction did not suffice as I had anticipated, to bring down the head. I could not account for the difficulty. But on renewing my efforts, and exerting all the force I dared exert, (the fœtus being dead) it suddenly came to hand, the resistance giving way with a considerable jirk. The cord was cut, and the fœtus wrapped up in a cloth under the bedclothes, and handed to an assistant without examination. I then undertook the delivery of the placenta; astonished at finding no funis; and still more so when examining per vaginam no placenta, I immediately examined the child, and found the placenta attached to the scalp over the vertex of the head, and a short cord descending from it to the umbilicus. Fearing an inversion of the uterus from the strong traction employed, I immediately ascertained its condition, and found it contracted and well placed.

I remember having been called to the assistance of a poor woman, whose child was born before my arrival. Getting out of bed in obedience to a certain irritation of the rectum, the child was suddenly expelled, fell on the floor and ruptured the funis within an inch and a half of the umbilicus, there was no inversion of the uterus."

After recapitulating the varieties and symptoms of inversion of the uterus, the Doctor thus proceeds—

"But from all the evidence we can gather in the cases, it appears that the chief danger results—First, from the condition of the uterus; and secondly, from hæmorrhage, either previously existing, or super-induced by the abnormal position of the uterus. The latter however, existing in the relation of an effect only, we must look to the condition of the uterus in order to ascertain the real cause of existing difficulties, or to deduce curative indications. The condition of the uterus therefore, I conceive, constitutes the principal source of danger, and that danger is to be estimated by the intensity of the stricture formed by the contraction (temporary or permanent) of the os tincæ or cervix uteri. Happily for the unfortunate subjects of this serious accident, it is as we are taught to believe, amenable to the resources of art, if the inversion be discovered early and the most approved remediate means are immediately and perseveringly employed. But if from neglect, or from misconception of the symptoms announcing the inversion, the proper time for action be lost, the patient may get into a state of great danger, resulting from irregular contraction, producing strangulation of the uterus. When the os tincæ, and cervix uteri contract firmly upon the body or fundus of the uterus the most alarming symptoms result. Vomiting, great anxiety, pain, faintness, cold sweats, a scarcely perceptible or extinct pulse, delirium, convulsions, &c., all in a rapid succession, and if not soon relieved terminating in death. Here, then we have no time for delay, no time to temporize in the vain hope that the stricture will relax, the uterus soften, and in a day or two present a favorable condition for reduction. Nor is it proper to consume valuable time, to torture the poor patient in persisting in fruitless and unsuccessful attempts to force the uterus through a rigid aperture, that bears no proportion to its magnitude, adding thereby to the danger, as well as the sufferings of the unfortunate woman. Delay on the contrary is necessary, nay imperative! when the stricture is not severe, and the symptoms not threatening, since we have histories of cases of successful reduction several days after the occurrence of the accident. After adverting to the plan adopted by Dewees of rendering relief by pulling down the uterus in incomplete inversion, he proceeds—"In my opinion, (and it is a mere opinion only, since it never has been practically demonstrated) the indications in strangulated uterus, are the same

as in strangulated hernia, venesection, tobacco, &c., excepted. The lesion of function and of structure are very nearly analagous. In strangulated hernia, we have precisely the same train of symptoms, save the hæmorrhage, &c., that occur in strangulated uterus, viz: anxiety, nausea, vomiting, pallor, faintness, cold sweats, failure of the pulse, &c. These symptoms proceed from the stricture made upon the contents of the hernial sac. What are the local results of stricture of those parts? Disturbed function, inflammation, and ultimately gangrene. The same events sometimes follow strangulation of the uterus, *to wit*, inflammation and sloughing of that organ. Dividing the stricture and placing the protruded parts in situ, would relieve existing difficulties, both general and local in either case. And it is my deliberate opinion, that the division of the stricture formed either by the os tincæ or cervix uteri, in the cases of strangulated uterus under consideration, is as fully indicated, as it is in incarcerated hernia. Why should not the stricture girding the uterus be divided, as well as one embracing the omentum, or the intestines? Are the symptoms less threatening, or is the accident less fatal? Would the division of the stricture in the one case be more impracticable or hazardous than in the other? I think not. The os tincæ and cervix uteri have been divided again and again without involving consequences more serious than those occuring occasionally from division of the stricture in hernia. And I believe the demand for a division of the stricture in the one case is fully as imperative, as it is in the other."

I cannot proceed in the brief space of a letter to recapitulate the features of the other essays read before the association, but hope to be able hereafter to advise you of our transactions. In conclusion, allow me to add, that I regret the apparent apathy that obtains too widely among our medical brethren in the west, in relation to the adoption of efficient measures for the promotion, culture and improvement of our noble science. Among the most feasible, ready and certain means of obtaining this desirable end, I believe the voluntary associations of its votaries stands prominent. In relation to the importance and bearing such societies have, our President well remarked. "To what causes shall we ascribe the elevation to which the profession of medicine has attained at the present day, ranging it by the side of the *certain* sci-

ences—those of physic, geometry, chemistry &c. Is it due to the ancient and once universally accredited notion of vitiated fluids, the ingenious and captivating theories of Stahl, of Hoffman, of Cullen, of Brown, of Darwin, of Rush, and a hundred others, equally vague and visionary. I fearlessly answer no! We owe it to medical institutions and societies. And who do we find at the head of those institutions and societies? The great and distinguished cultivators of organic and physiological medicine. The vain imaginings of the *theorists* have fallen before the ordeal of a rigid philosophy, a careful analysis and sound induction."

This hasty and imperfect letter, you are hereby authorized to use as your judgment may dictate. If deemed of sufficient interest to merit a place in your valuable Journal, we shall be well pleased, if not, do with it as you like, I shall be satisfied.

I remain dear sir, very truly yours &c.

M. Z. KREIDER.

Corresponding Sec'y of said Association.

Art. IV.—Physiology of our Sensations.

Physiological Researches on the Sensations, by M. Gerdy, professor of surgical pathology, in the Paris faculty of medicine, and senior professor of physiology.

[Translated from the *Archives Generales de Medicine,* for the Western Journal.]

Our sensations are so varied and so imperfectly analysed, that they form almost a new topic, richly deserving attention, both physiologically and pathologically. The study will enable us to distinguish a multitude of sensations heretofore confounded with one another, to know them better and to avoid that confusion which should no longer appear in science.

Physiologists understand sensation to be an impression received, transmitted and perceived, and such is a natural idea; I think, on the contrary, that we generally understand sensation, an excitation of which we are conscious, and which we refer to the organ excited. Thus we define it, *an excitation felt in the disturbed organ,* although perception is accomplished in the brain.

The most learned or the most ignorant would say, I have felt it, I have touched it with my finger; my hand is sensible, the skin is a very sensitive part. In speaking thus, do we not say that

sensation resides in the hand? When we perceive a sensation, as burning the finger, there is an impression received, the sensation is transmitted to the brain by means of a nerve, finally the brain is excited and *perceives* or is conscious of the sensation. May we not designate this complex phenomenon by the name of *sensorial perception?*

If through ignorance it were generally believed, that perception resided in the sensitive parts, would the name of sensation be applied to the phenomena which follow in sensorial perception? Undoubtedly it would. Sensation applies to what passes in the organ disturbed, for the sensorial transmission through the nerves is not felt nor generally known. Hence the parts that experience sensation are styled *sensitive*, and hence physiologists themselves are constantly designating as sensations, the first act of the complex phenomenon of sensorial perception. Do they not say that the brain *perceives* the sensations received by the organs? Now this is admitting that sensation is distinct from, and that it is completed before perception; Limitation which is indeed the fact, for the brain perceives without feeling. The most ignorant clown knows that he feels by means of his skin, tastes with his tongue, hears with his ears, sees with his eyes, &c., and he well knows that he does not experience these sensations within his skull.

If we understood the exact meaning of the words *sense*, *sensation*, *sensitive*, we should not say that the brain was the seat of sensation and at the same time that it was not sensitive. In restricting the meaning of the word sensation, I have rendered the language of science more precise and more logical.

To avoid all doubt and error in this matter I inform the reader, that the words sensation or impression, which are nearly synonymous, will be constantly employed to express the *change* or phenomenon existing in an excited organ. Sensation and perception cannot be synonymous, for there are perceptions that do not arrive through the medium of sense—thus a reminiscense is the perception of anterior sensation, but not an actual sensation. The consciousness of an emotion that we experience, or of an idea passing through the mind, is not a sensorial perception: a sensation then is not a perception. A contrary mistake caused Condillac, Destutt de Tracy, and their followers, to commit many errors while playing perpetually on the word sensation. I am

sorry to see so superior a mind as the illustrious Gall, falling into the same error. I shall never apply the word to the transmission and perception which follow, for every body, even the physiologists, apply the word *sensitive* solely to the organ which feels; because they cannot apply it to the nerve nor to the brain, neither of which are sentient. Finally, to avoid all obscurity, I shall recognize sensation only in the sensitive organs; and pass to the analysis of the sensations.

Different modes and species of sensations.

They may be perceived or unperceived. 1st, Among the first, there are those which we call physical because of their origin; 2d, others consist of sensation of activity of the organs and are impressions of *activity;* 3d, others caused by weariness, the sensations of *fatigue;* 4th, others arising during the rest of the organs, which are *physical wants;* 5th, others arising from unknown causes, and appear to be spontaneous or morbid sensations.

All these kinds or different modes of perceived sensation, comprise other species. But as attention and habit modify considerably the ideas derived from sensations, we must add two other forms of impressions to the five just mentioned, to complete the table.

Sensations that are not perceived.—These embrace the excitation which causes the contraction of an involuntary muscle, of a voluntary muscle in a limb that has been amputated, or in an animal just dead—also the impression made by fire upon a limb in which the nerves have been tied or compressed high up; finally, as more analogous to sensation than to any other phenomenon, the effects of a contagious virus, and the impressions of medicines introduced within our organs, whose consecutive effects alone we recognize.

When the fibres of the heart, or intestines are touched when they are irritated by pricking or tearing, &c., although the animal give no sign of suffering, still the contractions of the heart are quickened, those of the intestines are roused if dormant, or they become more palpable. Even after amputation when we irritate the fibres of the part the muscles sometimes contract so actively that the fingers are manifestly flexed. The same experiment with a muscle that has been removed from the body or with an animal that has been knocked down, or decapitated, or with electric sparks, even twelve hours after death, produces the same

effects, both on the muscles of animal and of organic life. Mr. Andrew Ure, thus excited horrible movements in the head of a criminal that had been severed from its trunk.

In all these cases, since the muscles contracted under the influence of excitants, they must have received an impression, they must have felt. None of these movements were communicated or transmitted, all are evidently the result of an excitation which aroused in these organs a slumbering but not extinct faculty.

When pathologists speak of paralysis of sensibility in apoplexy, we must not interpret the expression literally. Similar phenomena are observed when the nerve that conveys sensation is cut, the part and the nerve remain apparently insensible, but when cicatrized, do not the limb and the nerve become sensitive when irritated? Will it be supposed that the nerve was really insensible below the section, or that the cutting a nerve can destroy its sensibility? Is it not clear that the cicatrization of a nerve can only reproduce its conducting power, which it had lost by being cut, though it experienced sensations as before? Is it not evident that cicatrization can no more give new powers to the nerves below than cutting could destroy them? Let us suppose the contrary, and we decide that the nerves and their terminal divisions do not in themselves or from their organization possess the faculty of feeling, but that it is derived from above, is expanded there in the healthy state, and withdraws or vanishes when the ligature destroys the continuity, this would be absurd. It is the same with the contractility of the voluntary muscles, the section of their nerves does not paralyse their contractility, as may be proved by irritating the cut nerves and thereby producing contractions; but the section of these nerves prevents the voluntary excitation coming to the muscles, which remain paralysed from the will without being really so, as the skin that has had its nerves cut appears insensible though nothing proves it to be really so.

Another example of inappreciable sensation is found in the writer, actively engaged in composing, who does not perceive the cold until his benumbed fingers refuse to hold the pen. When a disease is contracted by immediate contact, we are unconscious of any sensation, still, sooner or later an organic lesion is developed

in the point exposed to contagion, vital movements, which are not transmitted mechanically—if they result from a particular excitation, the affected point *has felt it.* When mercurials excite salivation, purgatives and emetics, the biliary secretion, sudorifics, perspiration, &c., without our being conscious, it is plain that they have produced upon the salivary glands, the liver, or skin, an impression of some kind, which though unperceived has nevertheless excited and increased their action.

Since in all the cases we have analysed, there has been an excitement and consequently local impressions, not perceived but attested by movements which they have provoked, must we not conclude that there are in the economy, latent and local sensations? I will only introduce one order of facts. Fauvel and Méry have each shown a child born without brain or spinal marrow, that lived several hours, and gave evidence of sensation, one survived twenty-one hours, and even took nourishment, and therefore felt the want of the food that was offered, for he took it. Who will venture to say that he was conscious of these sensations?

If any one objects to my calling these phenomena unperceived sensations; if for want of restriction the connection with sensations be not perceived, and if it be not known where to refer them, let them be called by some other name, and not left out of works of science as has happened heretofore; making it apparent that we could not distinguish the facts connected with physiology, and that our views are too contracted to embrace their whole extent.

These unperceived sensations are so obscure and so little known that we shall not further discuss them, and the generalizations which follow, may be equally applied to them, as to the sensations which we perceive.

1st. The *physical sensations* are either general or special. The general physical sensations are produced by physical or chemical agents; heat, electric strokes, weight, motion, chemical combinations &c. These sensations are not all observed, nor in the same degree in every tissue, nor in every healthy or morbid condition of the frame. They present remarkable though unobserved characters. They only convey the idea of an impress, of the presence of an exciting agent, or of pain, but do not exactly acquaint us with this agent—thus whether a recent or inflamed wound or

an exposed nerve be touched with the instrument, the patient recognizes the contact of the probe without distinguishing its form; if it be burned or pinched, or cut, he commonly suffers, but can illy distinguish the sensations experienced, and will refer a burn to a pinch, or the latter to the knife, attributing to one action that which belongs to another. I beg the reader to dwell upon these truths, which will prove very important as we proceed —in teaching us the facts which belong to general physical sensation, and to distinguish it from special physical sensations, from that of touch for instance, which teaches us the form, surface and size of bodies, their dryness, or dampness, &c., a sensation that has been confounded with general physical sensibility.

Especial physical sensations are impressions transmitted by a definite agent, upon one or more specified organs:—such are sight, hearing, smell, taste and I would even add those sensations that have been neglected by authors different from the five senses, as tickling, the effect of ammoniacal vapours upon the conjunctiva, which have been confounded with those of general sensibility or with touch. They are distinguished from the first because they are peculiar to the parts wherein they are experienced, and from the latter, because they do not convey any idea of consistence, form, or other qualities of bodies. To this class I would also refer the perceived impressions that are generally caused by medicines, which, for want of a better name, we may call, *medicinal sensations*, in reference to the action of drugs of which we are conscious.

They vary according to the seat, intensity of the impression they make upon us, the effects which follow, the condition they require, and the influences which modify them.

Medications which produce peculiar sensations independent of taste, are narcotics and especially opiates, alcoholic drinks, strychnine, cantharadine &c. Thus light doses of opiates produce a peculiar dullness of the organ of thought, and create a desire for sleep, and a general obtundity which is not destitute of charms. Alcoholic drinks produce analogous effects, causing the jollity of drunkenness. On the contrary, the sensations caused by strychnine are acutely painful, causing animals to utter piercing cries. The other sensations of tact, different from touch properly so called, are distributed among many organs, and especially the skin

and the mucous membranes near the natural openings—their discussion will be resumed when we come to analyse the sensations of the skin, mouth, nose &c.

Physical sensibility is not a unique faculty, as might be supposed from reading works of physiology, but is much more extended and varied than would be supposed, and comprises several species, distinct and independent of each other. There are facts of this kind which have obliged me to recognize the *multiplicity* of vital properties a principle, true as fruitful, and as a theory, large as that of Bichat, is contracted.

2nd. *Sensations of organic activity*, constantly give us consciousness of life, so evident, that it is surprising authors do not speak of it, they are readily perceived in the contraction of our muscles, contributing to our ideas of distance and space. It is not, as Buffon said, speaking of sight and the other senses, it is not touch which teaches us the distance of objects when we are obliged to transport ourselves from one place to another, it is the sensation of the activity of the organs, and the more or less extended view of objects successively passed.

We feel perfectly well, acts and emotions of the understanding, so well that we can study them by observation, distinguish them by analysis, judge them and know them. In this way we now penetrate some of the mysteries of intellect. We equally feel the activity of the chest, the larynx and the organs of speech in the production of the voice and pronunciation; and the activity of some of the digestive organs during digestion. We may feel ourselves breathe, but we do not habitually feel the action of the lungs, nor the heart, and never that of the vessels, glands nor lungs during circulation, secretion, nutrition or calorification.

3rd. *The sensations of fatigue* arise from the excessive action of the organs, whether in the intensity or duration of their exercise. They are distinguished from the preceding in persisting after the activity of the organs, they are only perceived in those organs which are active and at rest by turns, and not in those which like the heart and lungs, are never really at rest. When slight they are bearable, when intense, they are so painful as to demand inaction or to render the organs powerless. Fatigue is the limit which nature seems to have placed upon the activity of animals, and which the most indomitable courage cannot over-

come. Rest composes the exhausted organs, repairs or renews their spent powers, and reanimates, as it were, their energies which were nearly extinguished.

4th. *Physical wants*, so called in opposition to moral and intellectual wants, are those of breathing, drinking, eating, &c.— These sensations arise during repose of the organs and are thus opposed to the preceding, which arise from excessive activity.— While we are equally fatigued by repose, and thereby forced to act, as by exercise and obliged to rest, we pass alternately to these different and contrary wants, oscillating continually between two opposite states of activity and repose. All these wants are either natural or artificial, or sometimes both.

The *natural wants* are spontaneously developed in all men, they are those of feeling, thinking, moving, eating, breathing, &c.— The *want* to feel, to think, to act, is the cause of our activity or activity itself. It is evident that the want to feel is not manifest in senses at rest, and that their activity appears essentially subject to that of the understanding; but may it not be said when we have an itching, that we experience the want of a contrary sensation, is it not to drive away this feeling and supply the want, that we sometimes scratch ourselves till the blood flows, with evident gratification? We may even say that the desire to move, to take nourishment, &c., are in the abstract wants of sensation.— As the understanding acts independently of excitants or influences of nature, the intellect never perceives the least want, without acting it out irresistibly, in the darkness of the night as in mid day, but this work is insufficient for persons long accustomed to more fatiguing intellectual labor.

The desire of action on the part of the muscles, is manifest; the yawning and stretching when we wake, the matinal crowing and flapping of the cock, the roaring of the lion, while he opens his mouth, stretches his limbs, and beats the air with his tail, are so many evidences of the fact that no farther proof is required.

Hunger and thirst, the desire to breathe, are so evident sensations, so imperious and so well known wants, that it is unnecessary to attempt a proof of their reality.

To satisfy these wants in moderation, is a source of pleasure and health, but to resist them is painful and sometimes even endangers life. It is admirable that the most important, pressing

and imperious of all our wants that of respiration, has not been abandoned to the neglect or caprice of our will, but conducted by instinctive and involuntary acts.

The *artificial wants*, as those of smoking, the desire of alcoholic drinks, &c. are, when developed, as imperious and tyranical as the natural, they torment us with inquietude, ennui and insupportable melancholy, and if not satisfied, disturb the health, if gratified, they cause great pleasure, awaken the intellect and inervation, and through this medium, a host of languishing functions, and bestow upon the whole economy, new powers, freedom and activity.

The natural wants may become in part artificial by the influence of habit; thus an active and laborious life, in which the mind or body has been severely exercised, renders idleness so painful as to endanger the health.

5th. The *spontaneous sensations*, are generally morbid actions, although they may present themselves in a healthy state.—Their permanence constitutes disease by the pain they cause and by the disturbance they leave behind them. They are of several kinds, itchings, pricking, creepings, chills, flushes, pains, and some peculiar morbid sensations, as the *aura epileptica*, *bolus hystericus*, and drumming in the ears, cerebral conjestions, &c.

Should we attribute these spontaneous sensations often without visible alteration, to an inappreciable, but real organic lesion? I think that it would be good logic, without transcending the facts furnished by observation, to ascribe them to an alteration of the sensibility. But, it will be said by those who trace every thing to anatomical alteration, how can we admit a lesion of function and consequently a change of the phenomena, without a preliminary organic lesion? Let us admit for a moment that there can be no derangement in a vital function, such as sensibility, or in the sensations derived from it, without some preliminary organic lesion; but this itself necessarily results from a lesion of the nutritive faculties or functions. Well, if we are forced at last to admit a first lesion of the faculties which preside over the molecular changes of our tissues, why not admit that one other property, sensibility may be thus primarially affected? It were indeed closing the eyes to the light, to reject that which is proved every day: what is it indeed but sensibility, that becomes exalted, dulled, and

modified in a thousand ways by exercise, under the influence of the slightest excitant; or an imperceptible breath that glances upon the surface of the skin? It will be said, this breath has produced a change in the molecular state of the skin, which caused sensation—for it is impossible to admit that the skin, which feels nothing actually, should feel without having changed its material state, since there is no effect without a cause. This reason will be so continued and carried out that it will be impossible to escape. I will first observe that this is asserting, not proving the question—Our skin is so tough that we cannot tear it to derange the molecules, but we are called upon to admit that the slightest breath may disturb them! Besides when we abandon ourselves to such vague suppositions, will it not appear that the vital nutritive function which holds the particles of the skin together, would first have been altered, without preliminary organic lesion, and consequently that there must always be first a vital lesion? The organic alteration cannot be prior to the vital lesion, since it has been caused by a mechanical or chemical agent, sufficiently powerful to produce instantly an intimate alteration of the tissues. Such theories will only suit superficial minds. Indeed how can a derangement of the molecules in a sentient organ, explain the mystery of the phenomenon of sensation?

If physiologists reasoned and analyzed oftener, they would not have confounded the morbid pains we have mentioned, with physical pains, and consequently the very different sensibility of the two, nor would they have persisted in saying that all the tissues became sensible when inflamed. This language is so deficient in accuracy that it leads directly to error. Thus, to cite a single example, from this operation, one would suppose, that the bones being inflamed, their osseous tissue would be sensitive to mechanical or chemical irritants, which is not the case, but these are spontaneous morbid pains that arise from morbid sensibility, and not from general physical sensibility, for they have none. These are facts which the practice of surgery proves every day in our large hospitals.

Sensations of attention. As their name would lead us to suspect, these are complicated with the attention. They are generally acts of the will, reflected or not, and instinctive, which give rise to movements, equally voluntary or involuntary, destined to

favor the accomplishing of sensation. They appear more distinct and perfect than the inattentive sensations; but we will show that this is only an illusion.

Walking carelessly along, if we are surprised by a bird passing rapidly before us, we see it; but find it difficult to tell its form or color. If it have awakened our attention and should again flit by us, we look at it, and follow it through space by a voluntary or involuntary movement, and observe accurately what kind of bird it is. If we hear a voice, or low conversation, we instinctively incline the head towards it, and listen, and may thus hear a colloquy that would have escaped us but for the extra attention.

Attention resembles a magnifying glass that enables us to see minute parts of an object; but how does it produce this result? Is it by rendering the sensations more decided? Such is the opinion of many authors and especially of Adelon; he says: "The will arouses the nervous part of the organ of sense and increases its action, as is proved by the greater intensity a sensation always has, when perceived with the will and attention."

If attention were an action belonging to the senses and to them exclusively, the proposition would be logical, because the senses alone would be modified; but, since attention is a state of the mind or brain, which commands and governs sense, it is possible that the change resides in the mind exclusively, and then the proposition may be false. Let us analyze this difficulty.

When we touch or look at any thing with great attention, do we feel that our hand or eyes are more sensitive, that they really receive a more lively and energetic impression than at other times? I have never observed it. But is not the mind more powerful and active, do we not find that it judges with increased ease and rapidity? It cannot be doubted. Then attention does not render the hand more sensitive, bnt the mind more powerful and correct in its decisions. It is very doubtful whether the senses are at all quickened.

We will cite two remarkable examples which will prove that attention brightens perception and judgement only but not sense.

When we see a bird far off and listen to its notes with great attention, if any one pass between us and the bird, we will see him without observing closely; if he speak, we will not understand him. But if our senses be in *erection*, if they be attentive, to use the

language of M. Adelon, how does it happen that our eye has not recognized the individual who passed by us, nor our ears distinguished the words he spake, although we both saw and heard him? It is because attention does not render sense more active, and because the sensations are only well observed when the mind is fixed by attention. Perhaps the mental state may increase the sensibility in the sufferings of hypochondria, which seem sharpened by the attention of the patient, but I will not venture to make the assertion.

What has been said of the senses is so true that the vulgar are struck with it, though they cannot account for it. Do we not every day hear people excuse themselves, when spoken to, by saying I did not observe you, I was absent, my mind was occupied. It will not therefore be supposed that they wish to say they did not see nor hear, certainly not—their minds were otherwise engaged. Thus it is, that the inattentive sensations escape unobserved, like the unperceived, or rather the perception of them is so vague that we have no precise idea of the particular agent that produced the impression. The attensive sensations on the contrary, inform us of it with the utmost precision. We shall see further, that exercise and practice add to the certainty and promptitude of our judgment.

Hence there is no difference between the perceptions greater than that which arises from the presence or absence of attention. Every sensation then ought to be successively studied in these two modes. In the case of an attentive sensation, we should always direct the voluntary or instinctive movements, to ascertain the excitant which caused it, and to multiply or enforce the impression.

Repeated or accustomed sensations. The repetition of excitants, or the habitual exercise of the senses produces different effects. Sometimes the sensibility will be exalted, at others blunted; in some cases it renders disagreeable, those sensations which ordinarially please, and often renders those sensations agreeable, which were first disliked, and thus creates tyrannic wants.

1st. Reiterated sensations, incapable of wounding the tissues, often irritate and inflame the organs—thus walking produces chafed feet; a strong light inflames the eyes, &c.

2nd. On the contrary, we often see cooks and blacksmiths handling hot coals and iron, that another person could not touch; our

artificers work all day without hurting their hands in the least; our foot-soldiers, after a long march, have neither blisters nor chafes on their feet; In both cases there has been at first, more or less irritation, which became blunted by a secondary effect.

3rd. Sensations which were first very pleasant, may become disagreeable and create a decided disgust—this happens with the smell of food that has made us sick, or when we have used one kind of food a long while; in the latter case the taste is not blunted but perverted, for the sensation is not that of insipidity, but is actually disagreeable.

4th. Sensations at first disagreeable, often become grateful and their absence a tyrannic want; thus many highly flavored articles of food and luxuries, at first repugnant, soon become delicious. Some, as strong drinks, become necessary, and are irresistible wants. We will observe one very remarkable general fact, the most highly flavored articles only, become very agreable and sometimes necessary; physically as morally, we never have a strong desire for insipid things.

In the face of these various modifications of the sensations or sensibility, what becomes of Bichat's assertion, that *habit blunts the sense and perfects the judgment?* It were well to call it an error, an assertion too much generalized in its first member, for it is only true in one of the four modifications which sensibility experiences from repeated excitation; the second part of the proposition is true, at least it appears so to me. Though M. Adelon attributes this improvement to the senses themselves and not to the understanding. That we may not misinterpret this author, we will cite his words: "If the organ be not sufficiently exercised, on the one hand, it will not be completely developed, nor, on the other, will it acquire in its action, all the quickness and precision of which it is capable, and *grows rusty*, as it were, for want of wear. If, on the contrary it be too much used, it wastes away and breaks." First, I think that the development of sense by exercise is a chimera; it has never been demonstrated that the skin on the fingers of the blind is unusually developed, that the tongue or its membrane were greater in gourmands or cooks; that the nasal cavities or membrane were larger in perfumers; that the eye was larger in the painter, or the ear in musicians, in whom these organs are very much exercised.

Secondly, the senses do not acquire quickness, precision and perfection by exercise, they are not educable. It is the mind which acquires this precision and perfection by exercise and education. Behold the painter whose eyes are enfeebled by age, but who yet sees well enough: do you think that he distinguishes less correctly what falls within the sphere of his vision, than an ignorant person with sharp eyes? Will the musician who hears less distinctly, judge less accurately, the merits of a composition? If you think so, undeceive yourself: They both distinguish and judge by the lights of their intellects if they see and hear, be assured they will judge as well as in their youth, and better, as age will have increased their knowledge and perfected their judgement. This theory of the influence of exercise upon the senses, is connected with that of the same author, on the influence of attention on the sensations; one appears to me no better than the other.

To sum up, there are perceived and unperceived sensations, of the first, there are physical sensations, those of activity, of fatigue, physical wants, spontaneous and morbid, attentive and repeated or habitual sensations. The physical sensations are general or special, the latter are tactile, those of contact, of medicine, taste, smell, sound or light. The sensations of activity are varied as the tissues in which they are found. The same may be said of physical wants. Spontaneous or morbid sensations are still more varied. Attention renders, the sensorial perceptions deeper and more just, but does not give activity to the sensations; finally habit sometimes blunts, sometimes exalts them but never confers an increased delicacy upon the senses themselves.

All these varied modifications, all these species of sensations except those fixed by attention and habit, belong to so many properties of feeling distinct from one another. There are then a multitude of various sensibilities in the animal economy, instead of one, as we might be led to believe by our physiologists, who refer all the sensations to an unique principle: *sensibility*, or at farthest to a second, illy founded property: the *organic sensibility* of Bichat.

Art. V.—Compensation of Physicians.

Observations on the compensation of Physicians especially in the Western States. By one of the Editors.

Our efforts to obtain a list of the fees of our medical brethren, from such a number of points in the Valley of the Mississippi as would afford a fair exhibit of their rates of charging, have not been so succesful, as to enable us, in this number, to present a tabular view. We respectfully solicit further contributions, especially from the states south of the Ohio river; and propose, mean while, to devote a few pages to the discussion of some general principles involved in the compensation of medical practitioners.

The people, at large, rather than those who practise medicine, are interested in the learning, skill and devotedness of the profession; for experience has shown, that in the absence of the whole, the confidence of the community can be acquired, even to a more profitable degree, than by their aid. If a colony of people were about to cross the gulph of Mexico, would it not be absurd for them to say, let the pilots, engineers and sailing masters look to their own qualifications and dignity, we have no concern in those matters? But suppose, still further, that those who guided and impelled the ships, were protected by supernatural or any other means, from the dangers of the sea, while the passengers were not, would it not be ridiculously absurd, for the latter to say, we shall not trouble ourselves about the scientific and nautical skill of those who are to take charge of us, that is their own affair? All the world would answer this question in the affirmative; and yet, this same world, with a few exceptions, perpetrates an absurdity quite as great as this, in reference to the medical profession. It is passing strange, that those who are to suffer under the mistakes of ignorance, heedlessness, and profligacy, should be the last to scan the character of the men whom they employ.

Dim, indeed, is the eye of common sense, in any people, when it cannot perceive, that the physician should be familiarly acquainted with several sciences, all of which, except anatomy and chemistry, are imperfect and speculative; and that, in his practical duties, he is to apply the half formed rules deduced from these sciences, to the abatement of disease, and the restoration of

health—duties which require patient observation, sound judgment and deep penetration. For these to be properly developed, a long and laborious course of study is indispensable, and the taste and temperament of the individual must be moulded in a specific manner. His vocation is therefore incompatible with any other pursuit. Still further, the physician should be, at *all times*, intellectually and physically prepared, to execute whatever service may be suddenly thrown upon him. How then can he, in justice, to the community, abstract his thoughts from his professional duties, and direct them on any other business? As easily might he serve both God and mammon—as soon direct the movements of the ship in battle, and at the same time amputate the limbs of the wounded.

The genius of the medical profession, excludes then, all other callings, as *means of support;* it claims the practitioner, both soul and body, as its own; commands him not to wander into the paths of commerce, the mechanic arts or pecuniary speculation; and tells his own conscience and the community, if he should, that he lives in the violation of duty. At the same time, no other profession involves its members in such extensive and varied social relations. In every part of the United States, the physician is, or ought tobe, a person of high relative rank—he should be a man of letters and science—a gentleman in habits and manners. He cannot, therefore, live in retirement and poverty. Like an actor while the play is advancing, he must be ready at any moment to enter upon the stage, and is obliged to appear in the costume appropriate to his character.

From these premises it results, that the compensation of the physician should be liberal. It ought to bring back with interest, what had been expended in the acquisition of elementary knowlege, and afford compensation for the tedious years of probation, to which he was subjected; it should enable him to procure all the necessary books, apparatus and instruments; provide adequately for the support and education of his family ; and secure him against want in his old age.

If medical practitioners are not rewarded to this extent, their fees are too low. We know of no other standard. This is their just demand. The claim of the profession upon society. The only condition on which the former can be kept prepared to ad-

minister, successfully, to the wants of the latter. If society would, then, provide itself with the best medical aid which is practicable, it must pay the price which such aid *necessarily* costs. It must class medical advice and medicines among its natural wants, and draw for their relief, out of this same treasury whence it pays for bread and meat. These ideas, however, are foreign to the minds of the majority. They call sickness misfortune, and regard the expenditure of money, for its relief, as augmenting their calamities. Hence they are forever at war, with those whom they invoke in the hour of bodily distress. Many have nothing to pay, and still claim the services of the profession, with an impudence which is but the exponent of the views of society at large.—Others, and the number is not a few, consider it in no degree dishonorable, to neglect payment for an indefinite time, and finally escape from it by fraud. Others assume the privilege of postponing the claims of their physicians to those of all other creditors. Finally, all classes, from the pauper to the nabob, combine in denunciations at the rate of charging, *whatever it may be*, which prevails among them.

All this reacts powerfully on the happiness of society, by its pernicious influence on a profession, which has much more to do with that happiness, than most other callings can have.

The want of a more liberal and willing compensation, compells a great number of our physicians, to add some other *business* to the practice of the profession; while many are tempted to abandon it altogether, for more lucrative employments. Of those who are not driven into either of these measures, not a few become disgusted with a calling, which exacts from them sleepless application, and fails to make any opulent return—a state of feeling little favorable to mental improvement. Lastly, when the natural disposition of the practitioner is in any degree avaricious, his slender compensation is apt to generate oppression of the poor. Such are the deteriorating effects of inadequate compensation.

The honest earnings of medical men exceed, to an incredible degree, their actual receipts; because they are never without patients, of whom they cannot demand any thing. But whence arises the claim of pauperism on the medical profession?—We can perceive no obligation resting on the physician to give his services, gratuitously, to a poor family, that is not binding on

all who surround such a family, to supply it with the necessaries and comforts of life. The judgment of society on this point is arbitrary and selfish. An upright decision would be, that in proportion as the time and energies of a physician are expended upon the poor, his rate of charging the rich, should be increased. Such, however, is not the opinion of the latter, because their interest controls their judgment and conscience. But of those against whom the physician does make charges, a great proportion fail to pay him. Some become insolvent, others emigrate and are lost sight of, others dispute his prices and the aggregate amount, compelling him to abandon his claims, or to prosecute their collection in the courts of justice; finally, public sentiment prohibits a resort to the law, under a variety of circumstances, in which it would be tolerated in other creditors. For example, the physician who should sue his patient when he had just recovered from an illness, would bring censure on himself and the profession; but the merchant or grocer, who might do the same thing, for necessaries in that sickness, would pass unreproved. We again ask, where is the justice of this distinction? If the rich sympathize with the poor when they see payment exacted, by the medical men who have alleviated their sufferings and saved their lives, then, we say let the rich step forward and equallize the burden, by distributing it among themselves, until each of them has the proportion which is left to the physician. This would be far more honorable, than to pour out sneers and obloquy. They should "come into court with clean hands"—their own charities should be made liberal, before they have a right to pass sentence upon those of their neighbors.

The practice of attending the poor gratuitously, and those in moderate circumstances for a slender and uncertain, occasional, compensation, is, however, universal, and not likely to cease.—Such being the case, it follows, that the support of a physician must be derived from those who are in comfortable or opulent circumstances; and having made the amount of property an element in the system of charging we should carry it out. If, according to public opinion, the patient who has not the means of paying *much*, should be charged but little, it follows, that the patient who is wealthy should be charged a great deal. The rule should work both ways. It does not, however, work up-

ward without resistance. The rich man says—you should attend the poor gratuitously, but you must charge me no more than the mechanic who administers to my artificial wants! Admirable consistency!—The impudent offspring of a cold-hearted selfishness. There are three strata in society, the rich, the poor and the intermediate, which graduate each other. The charges of a physician should be framed with a reference to the last. As he descends among the poor, they must decrease till they vanish; as he ascends to the rich, they should be increased, in proportion to their reduction in the other direction. This is JUST, *because* it is but carrying out the conventional idea, that poverty ought to modify our charges. It assumes that if poverty should reduce—riches should augment them—an assumption which cannot be overthrown. We ought to look to our rights in this matter. In every town it should be the practice of the physicians, to charge higher as their patients are wealthier; and they should sustain each other in the collection of their claims, on this principle.

Our charges ought to be modified by another circumstance.—In chronic cases, obstinate but not violent, requiring occasional visits for a great length of time, the price charged for each, should be greater, than in cases which require one or two visits, *per diem*. A foundation for this rule exists in the extent of the inquiries and renewed examinations, which are necessary, to reproduce in the mind of physician, the exact condition of his patient a week before, and thus enable him to compare the present with the past.

Again. The nature of the disease and the temper of the patient should modify the rate of charging. When detained an unusual legth of time, or required, habitually, to make his visit at a specific hour, to the neglect of other business, a greater sum ought to be exacted.

Again. When a disease is protracted far beyond its ordinary duration, or one that is generally cured, proves fatal, our bills should, in most instances, be rendered with some abatement; while on the other hand, when that, which is usually protracted, is cut short, or that which commonly proves fatal, is cured, the reward ought to be greater, than should be claimed, for the same amount of personal attendance, in ordinary cases. This principle does, indeed, obtain extensively in our surgical practice

and why should it not in our medical? The reward for operations, is in proportion to the results obtained, not the extent of cutting; in the practice of physic it *should* be the same, but is not. Very often, by ten visits the life of an individual is saved, and still, only ten, more likely but five, dollars are charged; while, for an operation that should preserve life, a hundred would be regarded as below the mark. Such a distinction between two branches of the same profession, is unwarrantable and absurd.

Finally. Experienced and aged physicians, should charge higher than the younger. The latter, as a general remark, are less efficient, and their patients commonly poorer. When members of the Bar, of different ages and grades of talent and experience, are associated in the same cause, by the common sense of all concerned, the young are paid less than the older and abler. Why should not the same rule apply to physicians? As they advance in age and character, they should place a higher value on their services, and sustain each other in collecting on this principle. The younger members of the profession are much interested in this matter, for as long as the community can obtain the suggestions of ripe experience, as cheap as the theoretical prescriptions of youth, they are likely to prefer the former. The physician of 40, who is afraid to advance his charges, lest he should lose his business, discloses that he is conscious of having grown in years faster than in knowledge. Such an one has found his way into the ranks of the profession by some mistake—his destiny has been violated.

Throughout the Valley of the Mississippi the practice of extended credits to our patients, is a great inconvenience and frequently a serious loss. Many who could pay, disappear before the time when, according to custom, their bills may be sent in; and, in accordance with the deepest principles of human nature, the disposition to discharge them decreases with the lapse of time from the illness. This disposition is the highest guaranty which the physician has, and fashion should not counteract its advantages to him. Still further. A vicious public opinion has decreed, that the patient, after his recovery, may answer to and reinstate himself with all the world, before he compensates the very man who has preserved him to that world. Common sense and common justice, could they be allowed to speak, would pro-

nounce, that the man who achieves this, should be rewarded first. We need not say how seldom this is done.

It may be asked, whence all this grumbling? Is not the medical, a charitable profession? Does it not even boast of its benefactions? Where is its vaunted dignity, when it condescends to complain of its rewards? We may answer these questions, by asking others. What gave to the profession this high character, but the charities it always has and will administer, beyond every other? But are physicians the agents of society in these administrations? We say no: Only a part of them are even known to the public. Is the physician a stipendiary of the state? Does he enjoy any specific immunities? The answer is still in the negative. In Ohio and some other states, his profession is even taxed. Must he not pursue it, then, as a business—a source of support for himself and his family? And in doing this, must not the rules of business govern both him and those who seek his services? The great amount of his private charities, renders it the more necessary for him to be adequately and promptly compensated by those who are able to pay him. No considerations of delicacy should deter him from seeking this compensation—no sophistry mistify his mind on this point. He is not less worthy of his hire than those who wield the pen or axe, nor more capable of living and laboring without reward, than they. Thus while he bestows liberal charities on the indigent, his relations with those who have property, must be governed by the rules which regulate the business of the country.

If the profession in the West, were paid more willingly and adequately, it would speedily rise to higher usefulness. Boys of greater promise and ampler preparation would be put to the study. The stimulus of prospective wealth would be added to that of promised fame; and the number of aspirants for the latter would be increased, by the influence of the former. The governing principle of the age is the love of money; but this principle *may* be united with those of a milder and holier temperament. Thus softened it does no harm but much good, both to the individual and the community. If the rewards of the profession in the Valley of the Mississippi were doubled, its scientific respectability would rise in the same proportion, and its charities suffer no abatement.

But without the co-operation of society, this means of raising it into higher skill and usefulness, cannot be made available. It depends, then, on the people themselves, whether they will confide the preservation of their limbs and lives to the illiterate and superficial, or to men deeply read in the philosophy of the human body, and accurately acquainted with the means of removing its disorders—the former are a curse, the latter a blessing to the world. D.

REVIEWS

AND

BIBLIOGRAPHICAL NOTICES.

Art. VI.—White Swellings.

Memoire extrait des lecons cliniques de M. Velpeau sur les tumeurs blanches; exposition nouville de ces maladies, par Gustave Jeanselme. (Archives Générales de Médecine.)

Notes of Mr. Velpeau's clinical lectures on White Swellings, with a new view of these diseases—By Gustavus Jeanselme.

This essay embraces the discussion of a very common class of diseases, that are a source of great anxiety and sometimes excruciating pain to the patient, and cause great solicitude to the practitioner, who with mortification, frequently beholds them proceeding to an unfavorable termination despite his untiring and continued efforts.

The very names that have been applied to the disease, are a proof that its pathology has not been well understood. White swelling, scrofulous joints, dropsy in the joints, &c. &c., are terms that have been familiarly used without any very definite import, and applied, without sufficient discrimination, to different diseases, so that, in perusing the works of authors, it is often exceedingly difficult to ascertain the precise meaning they are intended to convey, without a very close comparison and analysis, of the writer's composition.

We find that Mr. Velpeau has introduced a new word, *Arthro-*

pathia, which is no doubt etymologically correct, and may perhaps serve better than any other, as a generic appellative for the whole family of diseases of the joints. Still it is no more definite than the others, and is only preferable, because it is so comprehensive that it embraces all forms of the disease from whatever cause they arise, or whatever may be the characters they assume.

We propose to give a brief account of Mr. Velpeau's classification, with a few passing remarks and an occasional allusion to the writings of other authors, and wherever it may be possible, we shall introduce the synonyms, so that the reader may be aided as much as possible by association with familiar descriptions.

Commencing with a classification of the different forms, which appear sufficiently marked by their symptoms, we will present them, from our author, as follows:

"White swellings belong to two great classes of arthropathia: A. of the soft parts: B. of the hard parts; The first class naturally divides itself into three genera; external, internal and capsular; the second is presented under the form of cartilaginous, superficial bony, and deep or parenchymatous bony arthropathia. All of these may be rheumatic, scrofulous, tuburculous, syphilitic, scorbutic, cancerous, &c., or simply inflammatory."

"They may be further noticed as follows:—1st *Extra capsular arthropathia.* Stiffness, sometimes pain; irregular swelling, without effusion into the joint—generally a slight disease; requiring the same treatment as phlegmonous erysipelas, or engorgement of the subcutaneous tissues,—if there be a purulent collection, use the bistoury with boldness."

By *extra-capsular* we suppose our author intends to designate the collections in the Bursæ mucosæ, with which all are familiar. The next form seems to embrace the White swellings of Bell and other authors, and those diseases which Mr. Brodie refers to the ligaments, including also the *Hydarthrus and Hydrops* articuli, which Mr. Brodie attributes to a "diminished action of the absorbents, or to an increased action of the secreting vessels,"—and here we find him at issue with Velpeau, who denies that Bichat or his followers have ever satisfactorily demonstrated a *synovial membrane* on the articulating cartilages—this matter will be further considered as we advance; we now return to Velpeau's:

"2nd. *Pure Capsular Arthropathia*, caused by sprains, external violence, or rheumatic affections; accompanied by pain, on certain movements, and sometimes increased by pressure; causing a swelling of the extra capsular layers; producing internal effusion. It is a more serious lesion than the preceding, and the origin of some that are to be

described; It requires active anti-phlogistic medication, and afterwards, resolvent ointments, large blisters, compression; and full doses of mercurials.

3rd. *Specific or blennorrhagic arthropathia*, comes on suddenly; soon characterized by an abundant effusion, with little pain in the first stage, it soon assumes all the characters of an acute arthritis in the second; it requires an energetic treatment, but rather evacuant and revulsive than antiphlogistic; blisters, mercurial frictions, compression, purgation, with large doses of calomel, sometimes also balsamic substances.

4th. *Fungous Arthropathia.* Sometimes primitive, oftener consecutive, always mild and rarely painful; it is announced by elastic, thickened enlargements, sometimes rolling under the finger like a foreign body, there is occasionally effusion, the joint may acquire an enormous volume, without absolute hindrance to progression; it is generally serious from its obstinacy, sometimes resisting every thing, it never yields to blood-letting alone, is improved by the *monstrous blisters*, resolvent ointments, transcurrent cautery, moxas, setons, escharotics, compression and large doses of calomel."

The fungous arthropthia just mentioned appears to bear a very close analogy to the affections described as a "morbid change of structure" by Brodie—and which he considers as owing their origin "to a morbid action in the synovial membrane which loses its natural organization* becoming converted into a thick pulpy substance of a light brown or reddish brown colour, intersected by white membranous lines." He considers the disease peculiar to the synovial membranes, and compares its characters with those of tubercles, schirrous, fungus hæmatodes, &c., in which the natural structure is destroyed and a new one added. He also observes that these changes are most common in the knee joint, which may be attributed to the effect of cold. This form also bears a very great resemblance to the *fungus articuli*, of German writers, and includes a part of what are familiarly known as *loose cartilages*.

The next form is evidently that which is commonly known as dropsy in the joint, and may be very properly referred to an inflammation of the synovial membrane, with consequent effusion.

"5th. *Pure synovial arthropathia*,—Essentially characterized by a serous effusion, without pain or sensible thickening of the articular envelopes, slightly hindering the movements of the joints; requiring purgatives, mercurials, colchicum, or diuretics associated with large blisters and resolvent frictions."

"All these forms have the common character of swelling and super-

*This form also bears a very close resemblance to the *fungus articuli*, of the German writers.

ficial pain from the beginning, and they never last long without changing the form of the part."

After demonstrating the existence of the synovial membrane, and tracing it over the cartilages of incrustation and interarticular fat, as the conjunctiva covers the cornea, and alluding to its strong functional and anatomical resemblance to the serous membranes, Mr. Brodie says he has never met a case where the disease was proved to have originated in the ligaments, and that no part of the body is much more frequently diseased than the synovial membranes. Cruveillheir, (Dict. de Méd.) gives, as the result of his observations, that in nineteen out of twenty cases, the disease is a chronic inflammation of the tissues, and that even where the other parts are involved, the same proportion will be found to have commenced in the synovial membranes, that they assume a fungous appearance, and that amputation is too often performed; because pus in a joint, is like a cold abscess any where else, with considerable separation and difficult approximation of its walls, and that we have no longer to treat a disease of the ligaments or synovial membranes, but an old abscess which is in an unsuitable state for adhesion.

As Velpeau rejects this view of the pathology; we find that his next is called cartilaginous, it corresponds to what Brodie has described as ulceration of the articular cartilages, and to his affections of the synovial membrane investing them.

"6th. Cartilaginous arthropathia—A mechanical affection, embracing ulceration and contusion of the cartilages, and ulceration of the *synovial membrane*, or what is described as such by Mr. Brodie; resulting from pressure of the cartilaginous surfaces on one another; it may be compared to a crushing, wasting, or excoriation of organic plates; it comes on suddenly, and is announced by a crackling, and by acute pain that ceases entirely during the immobility of the limb, and recurs on certain movements; it is sometimes complicated with bony arthropathia. The cure is at length effected by absolute repose, or after the disappearance of the cartilaginous rugosities."

Of the next two species, which seem to be only varieties of each other, the first does not appear to have been particularly noticed by the writers that we have consulted, though isolated cases occur, in which the lesion appears to have been in the superficies of the bone.

"7th. *Superficial bony Arthropathia.* The cause is generally internal:—announced by dull pain when the joint is at rest, and acute, intolerable pains upon the least motion. The effusion, swelling, &c., are

secondary. It is a dangerous lesion; requiring V. S. cups, leeches, mercurials and purgatives, or otherwise, according to the general state of the patient; it is feebly modified by ointments, blisters, or compression; but improved by moxas and cautery, and especially by absolute rest; finally demanding amputation, or terminating in anchylosis."

The following, as the preceding, is supposed to refer to disease in the epiphyses of the bones and not in their shafts, if so, they are paralel to what Brodie calls "Scrofulous disease of the joints, having its origin in the cancellous structure of the bones," and to his "Malignant diseases of the bones."

"8th. *Deep arthropathia of the bones.* It is known by dull and deep pain, during motion or rest, worse at night, accompanied with heat, without swelling at first, and it may last for months or years without effusion; it sometimes invades the cartilages of incrustation, producing an excessively painful affection; it often embraces the head of the bone, when it gives rise to symptoms of mild or acute inflammation, and finally assuming the character of exostosis with inflammation or osteitis; it is always very tedious, frequently requires amputation, and never terminates happily until after the elimination of the necrosed or altered tissues, it especially requires internal remedies; blisters, cautery, moxas, but not compression, nor other topical applications."

"We see that pain is the reigning symptom and primitive sign in the affections of the hard parts, which often exist weeks or even months without any swelling. The class of diseases known under the name of *White swellings* is composed of an infinity of various lesions, and without studying their principal elements it will be impossible to perfect their therapeutics."

We now proceed to introduce a few passages which relate to the treatment of some of the most interesting and comprehensive species of this disease.

Treatment of Fungous Arthropathia.—After adverting to the modifying influences of age, sex, and constitution, and making a few remarks on general therapeutics and pathology, our author goes on to say:

"If the patient attribute his malady to some external violence, and is otherwise healthy, we should effect one or more general bleedings and afterwards apply leeches or cups to the articulation, rest must be enjoined, the bath used every two or three days, emollient poultices applied to the part, and the patient should be restricted to vegetable diet and diluent drinks. If the case be advanced general and local bleeding and the antiphlogistic plan should be adopted."

Of other local applications, he recommends the hydriodate of potassa, the ioduret of lead and the mercurial ointment. The former, as a friction morning and evening is considered a useful adjuvant

when the disease is in the soft parts, unaccompanied by pain or any symptoms of suppuration, but wholly inadequate and even hurtful in other circumstances than those mentioned. The ioduret of lead is viewed in the same light, but is less irritating and a better discutient. The mercurial ointment enjoys a higher reputation than either, with Mr. Velpeau, who recommends its use, after rigid antiphlogistic treatment according to the directions laid down by Bell; it must be long continued, associated with bathing, and its effect upon the gums must be watched.—We now come to the favorite remedy of Mr. Velpeau and we will quote his remarks upon the subject.

"In the neighborhood, or at a distance from the part, blisters are of doubtful utility, but placed upon the very joint they have effected cures. I have seen great benefit derived from the usual mode of applying a number of small blisters around the joint, but innumerable trials have convinced me that the blister may be infinitely more efficacious in another form. I direct it so large as to envelope the whole joint and extend an inch beyond the swelling. In this way there is no more pain than usual, nor is its effect upon the urinary organs much increased, and it may be moderated by the use of camphor. Febrile reaction is not to be dreaded, and the change sometimes effected is truly remarkable. I have used it more than two hundred times in five years, and can affirm that it never appeared to aggravate the disease, whilst it has been generally impossible to doubt its efficacy. We may always calculate upon its affording relief when the affection is confined to the parts between the capsule and integument; chronic phlegmasiæ of the capsule yield rapidly to it, and even obstinate fungous arthropathia is powerfully controlled by this agent, when the hard parts are not involved; but sero-synovial effusion is conquered in a truly astonishing manner by these *monstrous blisters.*"

"Mr. Velpeau urges practitioners to make a trial of the bath first, the next day the blister is applied and left on twenty-four hours, if the tumour is not very irritable, the cuticle is immediately detached; otherwise the serosity is drawn off by clipping the vesicles. The denuded surface should be covered with paper spread with cerate, to be renewed every morning; this dries up the suppurating surface in a week or less. The patient is then left quiet as long as the tumour appears to diminish, when a second bath and blister are prescribed. The first effect of this powerful topical treatment is to soften the tumour and render it more fluctuating, which is often observed from the second day. Sometimes the volume of the tumour diminishes almost immediately; but oftener remains stationary, or even seems to increase for a day or two, and the capsule does not empty itself until the blister is desiccated."

Some cases are cited which go to strengthen this testimony; Mr. Velpeau recommends that other means which may be indicated should be associated with the blister.

Mr. Velpeau seems to set a lower estimate upon escharotics and moxas, though he recommends them in deep-seated arthropathia; in general, he thinks they should not be used until after an unsuccessful trial of other modes of treatment, and that they are rather adapted to complete a cure already in progress, than to commence with.

He very properly denounces the use of setons passed through the capsule, and considers their application elsewhere, as deserving no more confidence than an escharotic or moxa.

Compression.—Mr. Velpeau considers this agent too much neglected by Surgeons, having witnessed its great efficacy in the hands of Brétonneau at Tours, he determined to introduce it into the hospitals at Paris. He complains of the ridiculous lengths that some of its partizans went in extolling it, and of their designating even the different degrees of compression to be exercised, he says:

"Compression is best effected by a roller bandage, care being taken to fill up all cavities or depressions about the joint, with graduated compresses, and the whole so disposed that equal pressure may be made upon all parts; it should begin below the joint and extend a few inches beyond the diseased part. At first moderate, it may be afterwards increased according to the degree of irritation it appears to produce. It does not interfere with the use of ointments, and I have frequently combined it with blisters. When the joint has nearly resumed its normal dimensions, and we fear to relax the compression, lest the tumour return, it may be rendered permanent by pasting each surface of the bandage with starch, and applying bits of pasteboard.* The whole apparatus is moulded exactly to the shape of the tumour, and when the bandage dries, the patient may rise and walk about without apprehension, for the articulation is necessarily immovable, and it is almost impossible for it to swell again. Strips of adhesive plaster, applied as for ulcers of the legs, act mechanically and *chemically*. I have used them with every appearance of real benefit, but this plan is expensive, and requires more time and care in the application."

The Actual Cautery, has been much vaunted by many writers, but now scarcely used, because of the great terror it generally inspires, and the consequent objections of the patients. Mr. Velpeau considers it highly beneficial in some forms, particularly where there exists sero-synovial effusion. He particularly recommends the *transcurrent cauterisation*,† which he has seen bring a-

* Mr. Velpeau has for some time treated all fractures of the lower extremities in this way.

† This consists of a cautery two inches long, applied in the great lateral diameter of the joint with smaller strokes on each side, like the branches of a fern froud.

bout the resolution of engorgements and effusions that had resisted all other means, and says it effects a radical cure.

The *Douche* is considered an accessary which should not be neglected, but possesses no great power. Among the internal remedies, emetics and purgatives have not furnished any encouraging results—diluent drinks are recommended. The mercurial preparations so much extolled in England, appear not so highly valued in France; attention has recently been aroused by the publications of O'Bierne; but Velpeau thinks that he was mistaken in the diagnosis of the cases he reports, in which calomel was so successful, still, he admires the energetic course pursued, and says he has adopted a similar plan for some years—his prescription is as follows:

℞ Calomel, - - - grs. vj. to x.
Ipecac. - - - - grs. xij. to xx.
Rhubarb, - - - grs. xv. to xxx.

Mixed and divided into four papers. S. to be taken during the 24 hours.

We will quote the results of his practice on the plan of Mr. Brodie, giving from ten to twenty-four grains of Calomel per day, associating with it, from one to four grains of opium.

"In Arthropathia without alteration of the hard parts, and without fungous change of the capsule, the patient has improved rapidly, and the joint has been almost completely reduced in one or two weeks. When the capsule was much thickened, externally or internally, most patients were improved by the treatment, but the melioration was soon checked, and it was necessary to resort to other means to complete the cure. In recent cases with pain or other inflammatory symptoms, large doses of calomel pushed to salivation, generally exerted a happy influence in modifying the disease. In other cases, the mercurial treatment produced uncertain, and sometimes hurtful results, so that I now use calomel only, in recent cases with sero-synovial effusion, when local or general bleeding is inadmissable, and in old cases of the *hydarthrose* form; and generally associate it with external means when there is engorgement, thickening and alteration of the capsule, giving from ten to twelve grains the first day, with two of opium, and fifteen to eighteen the next day, if not contra indicated; whether there be ptyalism or not, the remedy is suspended about the sixth day, to be resumed in a week."

"Preparations of Baryta: were much praised during the last century by Crawford and others, and it has lately become a sort of panacea. In Germany and Italy the muriate has deen used in large doses, on the contra-stimulant method, but is now generally renounced. According to the plan of Rasori and Pirondi, I gave it in doses of four to six grs., in four ounces of distilled water, for four or five days, then twelve, fifteen and twenty grains, and even forty grains in twenty-four hours.—

Many patients took it for one or two months; some soon experienced nausea, colic, and diarrhœa, so that it was necessary to suspend it; others felt no inconvenience from its use. I must say that negative results alone have been obtained. The success attributed to it, is no doubt due to the associated vegetable diet, to the early stage, and slight form of the cases submitted; it engages the attention of the patient, and we gain time, and since time and rest are the chief elements of treatment, it may impose upon superficial observers. I have not used the preparations of iodine internally to any extent, but fear their action."

We now come to the consideration of *Arthropathia of the hard parts*, which, in accordance to the pathological views of Mr. Velpeau, embraces what is generally considered inflammation and ulceration of the synovial membrane investing the cartilages, affections of the cartilages themselves and those curious morbid growths that have been styled "loose cartilages." These are very ingeniously accounted for by our lecturer, but we do not find that he adverts to an operation for their removal, which has been successfully performed by British Surgeons, and also in this country, by a fellow citizen of ours, who operated in New-York with complete success, though he admits with others, that it is scarcely feasible, or at least, that it is attended with eminent risk.

We have heretofore alluded to Velpeau's views and expressed surprise at finding him differing from so many high authorities.—We will quote a few paragraphs entire, as they relate to very interesting forms of the malady we have been considering, and contain an exposition of his views upon the pathological anatomy of the parts concerned.

"*Cartilaginous Arthropathia.* In accordance with the ideas of Bichat, nearly all writers have described diseases, belonging exclusively to a pretended synovial membrane of the cartilages themselves, as if it had any thing to do with the other organic tissues of the body. Thus we see in most authors, that this disease of the joints is attributed to an inflammation or thickening, by ulcerations or some other organic and vital lesion of the synovial membrane of the cartilages. I cannot agree with the generality of Surgeons in this opinion;—first there is no synovial membrane on the surface of the cartilages—moreover, I do not fear to affirm, that the incrusting cartilages are insusceptible, primitively, of any sort of inflammation, thickening or ulceration. As they are really, mere crusts, without vascularity—they can only be secondarily affected, or, as inorganic bodies, like the hair, nails, epidermis, or the enamel of the teeth—that is, only mechanically and chemically. Still it would be wrong to deny the disease described by Mr. Brodie, who is only mistaken as to the situation of the affection he mentions."

"The presence of vegetations or fungi that have been observed on the surface of the cartilages, is explained in the following manner:—1st. They either depend upon fungous plates originally deposited upon the surface of the bones, and which being successively detached and raised, destroy the cartilage, making it appear embraced in the change; or 2nd, that these fungi, were only the result of an effusion of plastic organized lymph on the synovial surface of the bones, and afterward prolonged even into the interior of the joint. In these two cases it is possible to find, on a close examination, cartilaginous plates that are thinned, eroded, and moveable, as foreign bodies in the midst of the vegetations. Besides, plates are observed, still adhering to the subjacent bone, as in the normal state, with their free edges *thinned.* In my clinique, I have shown multiplied cases of diseased joints in full suppuration for months and even years; but you have seen that in these articulations the cartilages did not present any of the alterations generally attributed to them. I have frequently seen, and you may have observed, in the patients under care, the cartilaginous heads of the bones that were laid bare by accidental wounds, or by disarticulation, insensibly disappear by falling off, by wasting or by dissolution, but they never became vascular nor thickened otherwise than by imbibition. I repeat then in a familiar manner, what I have elsewhere exposed, in my *Traite* d' Anatomie chirurgicale, and under the word Articulation, in the Dictionary of Medicine, 2nd edition; that the cartilages of incrustation, and what has been designated by the name of synovial membrane of the cartilaginous surfaces, are insusceptible of any *primitive* organic disease."

"We still find an arthropathia arising from a wasting or some mechanical alteration of the articulating cartilages, particularly in old men and those that walk a great deal, the joints are dry or shrivelled, the cartilages are wasted by friction, and become thin, rough, and sometimes so unequal, as to be furrowed with grooves. In proportion to the depth of the affection, it produces only a slight dryness, pain and crepitation in the joint: but in subjects of middle age, with similar alterations, the jarring occasioned by the motions of the limb, are soon transmitted to the neighboring bony surfaces, so as to irritate them, to produce pain, and to cause another kind of arthropathia which will be soon described."

"The cartilages are liable to be contused or crushed. It may be easily conceived that falls or external violence so directed as to bring the ends of the bones in close contact and cause violent pressure between them, may contuse or even grind the incrusting cartilages more or less extensively—again, pressure obliquely directed, may detach or break off plates which will be isolated within the articulation. We can easily understand how such alteration of the cartilages would disturb all the motions of the joint, and give rise to most of the symptoms which would arise from the presence of a foreign body."

"This variety may be known by the following characters:—If the patient be not of advanced age, some forced march, fall, misstep or other external violence will be found the primary cause of the evil. Pain will have been felt before observing the least swelling—this will

be perceived in certain movements, and disappear in other positions; sometimes it will be so excessive as to cause the patient to fall, and will occasionally bring on syncope. As the pressure of the soft parts does not increase the pain, it will cease entirely with rest; and may be again produced by putting the limb in such position as to create friction. The pain will be more or less acute in proportion to the depth of the roughness on the cartilages, and to the extent of the injury toward the bone."

"The prognosis is worse here than in the affections of the soft parts, but better than when the bones are affected. It is serious because the injury of the cartilages is irreparable, but less serious than when the bones are affected, because, the affection being purely mechanical, the general organism does not receive so deep a shock. We rarely obtain a complete cure, but frequently some kind of anchylosis."

"The treatment differs from that already mentioned—general bleeding, mercurial and iodine ointments are rarely indicated; compression is at first of no avail. The treatment must be long continued; that which succeeds best, consists at first, of complete immobility, and it is very necessary to keep the limb extended in well furnished splints, or in a starched apparatus, with little blisters, moxas, escharotics, actual cautery, used as revulsives or derivatives. Internal medicines, whether preparations of iodine, colchicum, blisters, or the mercurials, are equally indicated—in fine, arthropathia of the cartilages requires; 1st, immobility of the joint;—2nd, some emissions of blood, if the circulation require it;—3rd, the trial of calomel or wine of colchicum in large doses for one or two weeks;—4th, the muriate of baryta for a month—and afterwards by way of topical applications, blisters, moxas, cautery, setons, or the transcurrent cautery. To all this there must be added an appropriate regimen, baths or douches."

"*Arthropathia of the bones.* We find in the articulating heads of the bones, all the diseases that are elsewhere observed—among them, caries and necrosis, fibrous, schirrous, encephaloid, tubercular, and hydatid, growths. If the arthropathia begin on the surface of the bone it may offer two types which we must not confound—either the region covered with cartilages is primarily affected, or the disease first affects the circumference of the head, not thus covered but within the articulation. Whether it be caries or any other lesion, the symptoms are nearly the same."

"Cartilaginous arthropathia of which I have already spoken, often runs into arthropathia of the bones, though the latter frequently exists without the former. The surface of the bone becomes vascular and softens, the cartilage is detached or becomes thin, the bony surface is gradually covered with vegetations and fungous appearances which occupy one or more points or the whole, and which resemble the growths of a bad ulcer. Beneath them are found the carious, necrosed, tuberculous, or cancerous points, or a simple osteitis."

"The disease sometimes arises from an external cause, sometimes from an internal or hidden origin. From the beginning, dull, deep seated pains are felt, which become acute on certain movements, but which persist during perfect repose. The swelling is not early de-

veloped and when it comes on, it is by an effusion of liquid into the joint, rather than by thickening of the soft parts. When the disease is more advanced, the interior of the articulation becomes so sensitive that the least jar or motion causes the patient to cry out, and the slightest touch of the covering, or flexion of the limb, produces great pain. Thus we see patients devote their whole attention to preserving immobility of the affected joint; the uncontrolable spasmodic action of the muscles, and the unequal weight of the bones which renders it impossible to avoid pressure on the articulating surfaces, are especially tormenting. This applies only to the arthropathia of the bones corresponding to the cartilages; beyond these plates indeed, the disease is nearly similar to that which occurs in other parts. It is the internal and external face of the periosteum which covers the capsule, that becomes affected, or a portion of the bone covered by this part of the fibrous envelope. Here the pathological alterations may be the same, but as the altered part is not subject to pressure by supporting the bones in their movements, the symptoms are not so severe. The pain will appear less deeply seated, it will not be much increased by pressure around the joint, and slightly increased by motion; there will be less spasmodic action of the muscles, and the sleep and repose of the patients will be much less disturbed."

"In all these cases, if the disease have lasted a long while, and if it have produced pus, the cartilages may often disappear by dissolution, without there being any fungous growths on the bones, and even so that the articular heads of the bones may sometimes appear smooth as if burnished."

"On the contrary, whenever the malady commences in the parenchyma of the bones, it first exists in the form of simple osteitis, caries, necrosis, &c. When developed in a particular constitution, or by any specific cause, or when it arises from an internal origin, or depends upon any external cause whatever, it may be easily distinguished from the forms already described. The patients are warned of its approach by a dull, deep, intermitting pain, generally worse at night, often more decided during rest than motion. The part becomes *hard*, and weak; but the movements of the joint remain free, and there is no trace of effusion into the articulation. If swelling come on it is not easily observed. Perhaps, after all, this variety is rather a disease of the bones than an arthropathia, for the disease from the beginning may be foreign to the joint."

"After awhile the arthropathia of the parenchyma will offer symptoms still more easily observed; they will differ according to the mode in which the affection is propagated: thus, whether it arise from caries or necrosis, &c., or from suppuration of the bones, tubercles, cancer, &c., the disease may progress towards the cartilage, or in an opposite direction, or again towards the circumference of the extremity of the bone. In the first case, the symptoms of superficial arthropathia of the bones will come on, the cartilage will be loosened, the pain will become excessively acute effusion will be established into the joint and we shall have all the symptoms above described. In the second case, the pain will remain dull, it may become lancinating, though still

deep, it will increase towards the middle of the limb; and how acute soever, it will not hinder exercise of the joint. It will generally be a long time, before swelling and irregular lumps, announce exostosis and decide the true nature and precise seat of the disease. When, instead of being propagated in the axis of the bone, the disease proceeds to the circumference it points under the periosteum which is in contact with the synovial capsule, and then it becomes completely a superficial arthropathia of the bone; sometimes it reaches the circumference without the limits of the febro-synovial capsule, and then we are advised of it by fixed, hard, painful lumps, situated on the circumference of the diseased bone, while the joint remains free in its motions and without effusion. The pain is increased by pressure on some one part, while no pain is felt in the neighborhood."

"The prognosis is always serious: though varied according to the form of the disease. Indeed, tubercular, cancerous, and scorbutic affections are always more serious, near the joints than simple caries and its consequents. But this gravity belongs in such cases to the nature of the affection and not to its seat; *superficial* bony arthropathia, is *cæteris paribus*, more grave than *deep* affections of the joints, and when the former corresponds to the cartilages of incrustation, it is much worse than at their periphery. It will be seen, that the first, almost necessarily brings on the loosening and destruction of the cartilages, that suppuration is almost inevitable, and that the functions of the limb must be forever lost, if indeed, amputation be not imperiously demanded. But when the periphery is affected, the periosteum or the fibro-synovial membrane alone will be altered, and as the articulating surfaces remain sound, the disease may last a long while, or at length disappear and the joint preserve its natural functions."

"Deep seated arthropathia of the bones is much more serious when it affects the cartilages; it then assumes at once all the dangers of the superficial form, and when it produces thickened masses of altered tissues, a cure appears scarcely possible, unless the altered part be eliminated by inflammation or removed by an operation. If, on the contrary, the disease follow another direction, the patient may continue twenty years without any further inconvenience than fistulous openings, and an occasional abscess arising from exostosis with inflammation and suppuration, until the irritation is thrown off—when the ulcer will be modified and healed."

"The therapeutics of this disease are still quite incomplete. As we are often influenced by the general state of the patient, and by his other maladies, the strictest attention to hygeine and general medication is necessary. In superficial arthropathia of the bones, large doses of calomel are useful, but they must be suspended for a fortnight, so soon as salivation is threatened; but when the disease is deep seated this medicine seems to be hurtful. The preparations of Barytes do not seem to deserve the least confidence in these cases, The same may be said of the iodurets, they should be used only to gain time."

"All forms of this disease in the bones, may be followed by purulent collections in the articulations, which occasion reaction, diarrhœa, burning heat, irregular chills, in fine, a sort of purulent fever. If the

whole joint be thus affected the only remedy to propose, is amputation of the limb. But these foci are sometimes found in isolated points, or in the shape of nodes on the periphery of the joint, the first idea then, is to give the pus vent; but the opening of such an abscess is a grave question. Experience proves indeed, that opening an abscess that communicates with the cavity of a large joint, is likely to produce all the symptoms of an acute purulent arthropathia, and consequently to endanger the life of the patient. If the pus arise from an alteration of the shank of the bone without connection with the joint, the opening of it is unattended with danger."

We have now followed Mr. Velpeau through some of his nice distinctions of diagnosis, and observed his bold and energetic treatment, and hope that benefit may be derived from an application of some of the principles inculcated; though we must still express our partiality to Brodie whose views of the pathology appear more in accordance with sound deductions and analogy.

J. A. W.

Art. VII.—Phthisis Pulmonalis.

Statistical and Pathological Report of the Royal Infirmary of Edinburgh, from 1833 *to* 1837. By John Home, M. D. President of the Anatomical Society, and Physician to the Northwestern Dispensary.*

There is no disease which has attracted so much attention, of late years, as Phthisis Pulmonalis. Besides the able treatises of Laennec, and Louis of France, of Koch and Englehart of Germany, Gobetti of Italy, Murray and Clark of England, and Morton of our own country, memoirs almost without number have appeared in our medical periodicals, some of them of sterling excellence, others of little or no value. Nor could this be expected to be otherwise. Men enjoy different opportunities and means of improvement; some are rich, and others poor; some have talents and others not; some are industrious, and others indolent; some are practical and others visionary, speculative, and full of "queer imaginings." Emanating from such a diversity of sources, there must necessarily be much that is good, bad, and indifferent, much that is really valuable, and not a little that is contemptible. Of all the lighter and more ephemeral productions, hospital reports

*Edinburgh Medical and Surgical Journal, No. 134.

on whatever subject, are, as a general rule, the most profitable. They are the records of the physical infirmities of the human frame; the chronicles of the nature and progress of diseases, the symptoms which characterise them, the various remedies employed for their cure, their duration, and final termination, accompanied, if the case prove fatal, with an account of the autopsic appearances. Such reports, provided they are drawn up in a plain, concise, and perspicuous manner, have a tendency not only to instruct, but to add materially to our stock of knowledge: they are worth a hundred ordinary dissertations, destitute, as they usually are, of facts, and distorted, as too often happens, with puerile conjectures.

The report of Dr. Home, of which we propose to give a succient analysis, is one of the most interesting that has lately fallen under our notice, and cannot fail to attract largely the attention of the profession. It occupies thirty closely printed pages of our Scotch cotemporary, and there is not a paragraph that does not contain some valuable information. The best way to give our readers an idea of the manner in which the different topics of the report are treated, will be to present to them, in as condensed a form as possible, an account of its principal contents.

The *number* of phthisical patients admitted during the four years and a half, the period embraced by the report, was one hundred. Of these sixty-one were males, thirty-nine females. These results differ widely from those furnished by Dr. Louis and Dr. Clark, in their excellent treatises on consumption, in which it is asserted that the disease is more prevalent amongst women than in men, in the proportion of about one-fifth.

Of ninety-six patients, eleven died before the twentieth year; thirty-one between the twentieth and thirtieth: twenty-nine between the thirtieth and fortieth; seventeen between the fortieth and fiftieth; five between the fiftieth and sixtieth; two between the sixtieth and seventieth; and one between the seventieth and eightieth. From this table it will be seen that the greatest number of deaths in the Edinburgh Infirmary occurred between the ages of twenty and thirty, the next in proportion between thirty and forty, and the next between forty and fifty. These results, as observed by Dr. Home, fully agree with those announced by Dr. Clark, from an examination of the statistical tables of the princi-

pal cities of Europe and the United States. "From a review of the above account it would appear that phthisis in Scotland prevails most between the ages of twenty and forty inclusive, which period comprises sixty-six of the cases. Hippocrates fixed the period of its greatest prevalance between eighteen and thirty-five. This appears too early an age for the above cases. Only three of them were between eighteen and twenty; eighteen were between thirty-five and forty. The opinion of Andral, that phthisis is more common among females below the age of twenty, does not appear to be confirmed by the above table. Only five of the females died below that age. The larger proportion of them died after that age. It is remarkable that more females than males died between the ages of forty and fifty, owing probably to the particular change in the female constitution at this period. Andral also found the mortality among women considerable at this period."

No *occupation* was exempt from the disease. Of forty-two persons, whose employments were known, nearly all were mechanics. Masons, painters, and carpenters, formed the most numerous class; probably from their being most exposed to the vicissitudes of the weather, to the inhalation of irritating matter, to intemperance, and to all kinds of dissipation.

The seasons had a considerable influence on the progress and termination of phthisis. It is singular that most of the deaths from this disease should occur in the months of summer, namely, in June, July and August; yet such is the fact, and the circumstance is satisfactorily explained by our author. Most of the cases commence, it is well known, in the winter and spring, and hence, as very few last more than six or eight months, the patient seldom survives the period here specified. Nor is this peculiar to Edinburgh. In Glasgow and Paris the mortality is equally great during summer, as the following table will show.

Season.	Paris.	Edinburgh.	Glasgow.	Total.
Winter	48	40	318	416
Spring	54	33	333	420
Summer	68	58	361	477
Autumn	64	33	304	401
	244	154	1316	1714

The *duration* of the disease varied in different cases, from a few weeks to several months. [Of eighty-seven patients, forty-nine, or considerably more than one-half, died within eight months of the commencement of the disorder. These results agree, in the main, with those of Bayle, Clark, and Louis. The duration was shorter in the female than in the male sex; and in this respect, again, the observations of Dr. Home perfectly coincide with those of Dr. Louis. In a few persons the disease ran its course with great rapidity; and these, it is worthy of remark, were generally considerably advanced in years.

As to the *mortality* in phthisis in comparison with the entire number of deaths, Dr. Home states that it forms a little less than one-seventh, which is very different from the experience of Dr. Louis, who calculated that one half of the patients in the charity hospital of Paris died of consumption. It is to be remembered, however, says the author, that these results are only applicable to phthisis as it occurs in the Royal Infirmary of Edinburgh, not to the complaint generally.

The *symptoms* of phthisis are now so well known that Dr. Home has not deemed it necessary to do more than barely allude to them. Cough, dyspnœa, night sweats, and emaciation, occurred in the greater number of cases : hæmoptysis was witnessed in twenty-six: in almost all, the quantity of blood was small. In four patients only was the hemorrhage considerable, and in two of these it was supposed to arise from the erosion of large vessels. Dropsical symptoms were observed in six—palpitations occurred in four. In ten of the cases there was pain in the epigastric region, with nausea, and occasional vomiting.

We now come to the second division of the report, embracing an account of the pathology of phthisis. The organs of the head in the few cases in which they were inspected, were perfectly healthy. In Dr. Louis' cases, although the intellectual functions were undisturbed, the brain or its envelopes were frequently affected.

Ulcerations of the *larynx* was witnessed only five times, but as the vocal apparatus was not always examined, it is impossible to establish any exact relative proportion of the cases reported by Dr. Home. Nevertheless he feels confident that this organ is much less frequently affected in Scotland than in France, where Louis

found it involved in one-fourth of his cases, and Andral still oftener. In nearly all the examples the ulcers were small and superficial, occupying chiefly the epiglottis, the mouth of the larynx, and the vocal cords. The trachea was found ulcerated only in a single case. Occasionally there were patches of redness, generally small, but now and then diffused over a large space. No tubercles were detected. Dr. Home believes these erosions to be peculiar to phthisis, having never observed them in any other diseases, except in syphilis, in which, however, they are much deeper, and attended with more thickening of the surrounding tissues. Their existence during life was indicated by cough, hoarseness, aphony, and pain about the larynx.

The most interesting part of the report is that which relates to the pathological anatomy of the lungs. The essential lesion in pulmonary phthisis, consists, as is well known, in the deposition of tubercular matter. This substance, which occurs either in the form of a hard, greyish, semi-transparent body, or in that of a light yellow, opake, and friable mass, is situated for the most part, Dr. Home thinks, in the air-cells, and in the smaller bronchial tubes. It is on this idea, which is in accordance with that of Carswell and other recent pathologists, that he has founded his division of tubercle into simple, aggregate, and diffused, the foreign matter in the one occupying a single vesicle, several in the second, and in the third one or more lobules, a whole lobe, or an entire lung. Each of these varieties, Dr. Home says, may be subdivided into the *grey* or the *yellow*, according as they consist of the one or the other of the varieties of tubercular substance. This arrangement is certainly unnecessary, as it can answer no useful purpose in practice, and besides is calculated to confuse by its complexity. An outline of it may, nevertheless, be interesting to the reader.

Of the *simple tubercle*, Dr. Home makes two varieties, the grey and the yellow. The former, which corresponds to the miliary granulation of Bayle, and the grey granulation of Laennec and Louis, formed the principal lesion in five of the cases, four of which were males. They occurred between the ages of twenty-two and thirty-nine, were most abundant in the superior lobes, and were observed with nearly equal frequency in both lungs. "These single grey tubercles appear to me," says Dr. Home, "to be the result of a chronic inflammation of the individual air-cells, giving

rise to the effusion of a concrete lymph on their lining membranes, which, gradually accumulating from the circumference to the centre, at length fills the whole of their cavities. Occasionally their central portions remain empty, producing the appearance of central depressions, when these tubercles are divided. At other times they contain in their centres a kind of inspissated mucus, giving rise to the appearance, as Dr. Carswell has observed, of central softening so much insisted on by Laennec. More rarely these tubercles contain in their centre bodies derived from without, as grains of sand."

These tubercles may exist in great numbers without giving rise to any symptoms. Percussion generally causes a dull sound if the pulmonary tisse is much condensed, or loaded with seriosity. Occasionally, however, the resonance is nearly natural. From the accompanying bronchitis the stethoscope commonly indicates the existence of different rales. In two of the cases Dr. Home noticed a very peculiar modification of the mucous rhoncus, resembling the creaking of Russia leather, and observable principally during expiration.

The *yellow simple* tubercle is readily distinguished by the peculiarity of its color, and by the softness of its consistence. It usually occurs in groups, in the lungs of children who have died of pectoral affections, supervening upon small-pox, measles, and scarlet fever, the surrounding tissue being generally in a state of red hepatization. This variety of tubercle is supposed by Dr. Home to be the result of acute irritation of the air-cells; and in corroboration of this opinion, he refers to the experiments of Kay, Cruveilheir, and others, in which yellow tubercular matter was commonly produced in the lungs of rabbits by the injection of mercury. When recent it is associated, moreover, with appearances which are the acknowledged effects of inflammation. Adults, it should be remarked, are not exempt from this species of deposit.

The *aggregate tubercle*, again, is divided into two species, the grey and the yellow. They are produced by the filling up of several contiguous air-cells, or the whole of those constituting a lobule, and correspond with the multiple tubercle of Lombard, the agglomerated tubercle of Gendrin, and the tubercular masses of Laennec and Louis.

The grey aggregate tubercle varies in size from that of a pea to that of a walnut, and in color from light grey to nearly black. It is hard, semi-transparent, homogeneous in its structure, and formed, as the name imports, by the agglomeration of a greater or less number of grey simple granulations. When the masses are carefully examined we can sometimes distinguish the different simple tubercles of which they are composed, each of them having a central depression, or a yellowish point. Occasionally they contain particles of silicous matter, as occurred in one of the cases mentioned in the report. This species of tubercle has precisely the same origin, as is supposed by Dr. Home, as the simple grey tubercle previously described.

The *aggregate yellow tubercle*, like the preceding, varies much in size and shape. When recently deposited, says Dr. Home, as we occasionally see it in the lungs of young persons, after attacks of acute inflammation, it often assumes an arborescent or starlike arrangement. When all the cells of a lobule are filled with the morbid deposit, the aggregate mass takes the form of the part in which it is developed. "This is seldom at first round, but angular and lozenge shaped. The round form, I believe, of these tubercles, is afterwards opened when they have been for some time deposited, and is owing to the pressure being equal on all sides. This has the effect, also, of making their texture, which was at first soft and friable, hard and compact. I conceive them to arise from acute inflammation of the lining membranes of several contiguous air-cells, or those of a whole lobule. When soft and recently deposited, they are generally associated with other known effects of inflammation, such as red hepatization of the surrounding pulmonary tissue, and lymph on the neighboring pleura, which, as observed by Dr. Alison, in all respects resembles the matter effused into the substance of the lung."

The third and last kind of tubercle described by Dr. Home is the *diffused*, more generally known since the time of Laennec under the appellation of tubercular infiltration. Like the preceding it consists of two varieties, founded mainly upon the difference of their color, and upon the nature of the inflammatory irritation, which in the one is chronic, in the other acute. The pulmonary structure when thus affected exhibits a homogeneous appearance, and generally cuts like cartilage. In the yellow variety it is more-

over, very granular, and seems to be entirely composed of little bodies, which, from the manner in which they are set together, have been aptly compared by Laennec to the eggs of certain insects. These grains are supposed by Dr. Home, and I think very justly, to be nothing more than air-cells filled with yellow matter. The morbid substance, of whatever color it may be, may be limited to several contiguous lobules, or it may occupy a whole lobe, or even the entire organ.

Such is a brief account of the several varieties of tubercular deposites, adcording to the notions of our author. We have already said that his divisions are objectionable; to make a mere difference of color a ground of distinction, is not only silly, but does not at all comport with the present state of pathological science. For this reason we greatly prefer the arrangement of Laennec, which is now generally adopted by the best writers on the disease before us.

We are glad to find in Dr. Home so strenuous an advocate for the inflammatory origin of tubercular phthisis. Whatever notions may still be entertained upon the subject by some, we have long been convinced that the doctrine in question is the only correct one. Every circumstance, indeed, concerning this morbid deposit conspires to corroborate this view, and it is only surprising that there should ever have been any other.

On the subject of tubercular excavations, Dr. Home has presented us with no new views, and we shall therefore pass it by; referring such of our readers as may be desirous of obtaining full information on this point, to the report itself, or to our review of Dr. Louis' work on Phthisis, in the tenth volume of the Western Journal of the Medical and Physical Science.

Adhesions of the opposite surfaces of the *pleuræ* existed in all the cases, generally on both sides, but sometimes only on one.—Their extent was always proportionate to the tubercular state of the lungs, and their strength to the progress of the excavations. The intervening substance was a firm layer, of variable thickness, and usually of a greyish or yellowish color. In sixteen of the cases evidences of acute pleuritis were found. Perforation of the pleura occurred in six, three on the right side, and three on the left. The lesion in most of the cases gave rise to acute inflammation, marked by sudden pain and dyspnœa: in one, death took

place in a few hours; in another, in a few days. In several the perforation had existed for some time, and the accompanying inflammation had degenerated into the chronic form. The abnormal opening was in some round or oval, in others irregular and ragged.

The *bronchiæ* were very commonly affected, and it is observed by Dr. Home that few cases of phthisis occur which do not commence with inflammation of their lining membrane. The tubes in one or two instances were dilated. Ulceration was rarely observed; occasionally there was thickening of the mucous tunic.

In regard to the relative frequency of the disease, both lungs were equally affected in twenty-five out of the one hundred cases. In thirty-eight the right lung was most disordered; the left in thirty-seven. Louis in his cases found the left lung much more frequently affected than the right; and Laennec, on the other hand, found the right, the most frequently diseased; so that the result of Dr. Homes' cases holds a sort of middle rank between the experience of these two pathologists.

Out of sixty-six cases in which the *heart* was examined, it was healthy in forty. This is very different, as the author observes, from the experience of Andral, who found the organ diseased in two-thirds of his subjects. The most common affections of the heart were hypertrophy of the ventricles, more frequently of the left than of the right, lesion of the mitral valves, and a patulous state of the oval foramen. Pericardial adhesions and effusions were extremely rare.

The *stomach* was found diseased in nearly one half of the cases, namely, in seventeen out of the thirty-six in which it was specially examined. In seven of the cases it was greatly distended, and altered in its position, extending obliquely downwards as far as the brim of the pelvis. This inordinate dilatation, which Dr. Home believes with Louis to be peculiar to phthisis, was generally accompanied with much paleness and attenuation of the different coats of the organ, as well as in a few instances, with softening. Ulcers were found in two cases; and in one the mucous membrane was thickened and mammillated.

The *small bowel* was examined in sixty-six cases, in more than two-thirds of which it was diseased. In twelve the solitary and agminated glands of the inferior portion of the ileum were en-

larged, tuberculated, and of a greyish or yellowish color. Ulcerations were observed in thirty of the cases, or in nearly one half. Louis found them in a much larger proportion in his cases, in seventy-eight out of one hundred and twelve.

The *large bowel*, which was inspected in fifty-five of the cases, was ulcerated in thirty-eight, a proportion considerably greater than in the small intestine. The erosions were generally deep, and occupied a considerable extent of surface. In one instance the bowel was perforated, and the patient died of acute peritonitis. Tubercular matter was rarely seen in the mucous membrane. In one case, in which dysenteric symptoms came on a few days before death, the whole of the large with a considerable portion of the small intestine, was of a red color and covered with recent lymph.

The *mesenteric glands* were enlarged in eight of the cases; but as they were seldom examined nothing can be said about the relative frequency of their diseases. Three of the cases occurred in children, in whom they produced symptoms of *tabes mesenterica*, masking in a great measure the phthisical. In adults they produced no symptoms.

The *liver* was very commonly diseased. Out of seventy-five cases in which it was examined, it was found healthy only in fourteen. In twenty-three it exhibited different forms of the early stages of *cirrhosis*, in which the organ becomes enlarged, indurated, and variegated in color like the section of a nutmeg, with dark red spots scattered over a light yellow ground. Neither Louis nor Andral take notice of such an affection of the liver in their dissections of phthisical subjects. They mention the *fatty* state of the organ as having occurred in one third of their cases. In Dr. Home's examinations it was observed in a smaller proportion, in ten out of sixty-five persons. The organ was of a light reddish yellow color, dotted over with brownish spots, soft in consistence, and quite unctuous to the feel. This lesion occurred more frequently in women than in men, in the proportion of nine to one. Many of the individuals in whom it was seen, had been addicted to the use of intoxicating liquors.

The liver had occasionally a *waxy* appearance. This change, which Professor Mayo has described under the name of *steatosis*, and which is probably only an advanced stage of the fatty de-

generation, occurred in five cases, four females and one man. The liver was often very much enlarged; and in three instances it contained tubercles.

The *spleen* was rarely much diseased. It contained tubercles in two cases: in a third, there was considerable thickening of its capsule; and in a fourth, a piece of bone, about the size and shape of the patella, was embedded in its substance.

The *kidneys* were almost always healthy. In four of the cases they had undergone the granular degeneration first noticed by Dr. Bright of England: in two others they were unusually pale: in none were there any tubercles found.

The *peritoneum*, on the whole, was not often diseased. Serum was found in its cavity in three cases, in two of which it was associated with dropsical effusions in other parts of the body.—Lymph and water, the result of acute inflammation of the membrane, were observed in two instances; in the one, in which it was general, it was evidently caused by a perforating ulcer of the colon; in the other it was more partial, being confined to the right iliac region.

Such is an outline of the report of Dr. Home. We ask our readers to give it an attentive perusal; persuaded that they will be both interested and instructed by it. Dr. Home has laid the profession under deep obligations, both in this country and in Europe; and humble as the task certainly is, we shall always be happy to analyse his productions, especially when they possess such sterling merit as the one here noticed. S. D. G.

Art. VIII.—Opera Minora.

Under this head we propose to notice a number of Discourses, Lectures and short Treatises which have accumulated on our table.

1. *Introductory Address to the Students of Medicine of the College of Physicians and Surgeons of the University of the State of New York.* Delivered Nov. 7, 1837, By Edward Delafield, M. D. Professor of Obsteterics &c.

The respectable author of this Address is more extensively known by his edition of Mr. Travers' on the Eye, than by his teachings in the University. He is evidently a man of sound

sense, and writes in a plain and perspicuous style. We are happy to find him insisting on the necessity of a better preparatory education than our students generally receive. We might have supposed, that the students of the Empire State, *do* come up to the study of Medicine with larger preliminary acquirements than those of the newer and wilder West; but from the earnestness with which the Professor presses the subject of elementary education, there can be no doubt that it is often exceedingly defective there, as well as here.

Our Author's advice to young men after they have entered on their professional studies, is highly judicious, though not, of course, very new or original. One paragraph appears to us so important, as to merit re-publication. In speaking of the study of the Materia Medica, he remarks—

"And here, too, the student will do well to use every means of gaining knowledge by his own experience. He cannot too soon engage in preparing medicines for administration. He thus becomes familiar with the substances he is afterwards to prescribe; he learns the modes of detecting their adulterations and impurities; and he employs the very best method of ascertaining and fixing in his memory their doses. There is no part of the education of students of medicine more neglected than this; and I believe it is not very uncommon for gentlemen to graduate, who have never prepared a dose of medicine, nor seen, except in the Lecture Room, half of the more common substances employed as remedies. It is, on this account, almost to be regretted, that the old practice, in this city, of physicians dispensing their own medicines, has fallen into disuse. Their pupils lose an advantage which they can in no other way obtain. I have always felt that the time which I spent, when a student, in preparing the medicines for the patients of my instructor, was as usefully employed as any which was devoted to my medical education."

We should be pleased to see many such introductories as this, printed and disseminated every year.

2. *An Essay on the Relation between the Respiratory and Circulatory Functions.* By Charles Hooker, M. D., read at the Annual New-Haven county meeting, of the Connecticut Medical Society, April 12th 1838.

This Essay of 47 pages, on a subject of deep pathological interest, manifests, on the part of its Author, a commendable degree of research, and a full perception of the importance of his subject. The following page sets forth the results of his inquiries, into the natural ratio between the respiration and the pulse.

"This ratio is stated by Haller to be as 1 to 3 or 4; by Dr. Graves, as 1 to 4. The number of respirations in a minute, in a healthy adult, is estimated by Magendie as 15; by Dr. Dunglison, about 18; by Sir Humphry Davy, 26 or 27; while Dr. Good, Dr. C. J. B. Williams, and most other writers, give 20 as the ordinary number. Supposing the latter to be the true number, and the pulsations, as commonly estimated, to be 70 in a minute, the ratio will be 1 to 3 1-2; while, according to the estimate of Sir Humphry Davy, the ration is about 1 to 2 1-2.

This discrepancy of statements plainly shows, that the observations of authors on this point have been very limited. The only method which will lead to correct conclusions, a method which I have frequently practised since my attention was turned to this subject, is to count the resperation of persons who are not aware of such observation: for, as the respiration is much under the control of the will, its frequency will be varied by the operation of the mind. Hence, a conclusion drawn from observing one's own respiration would be liable to error. Perhaps diversity of climate, and national peculiarities of constitution, may occasion some variation from the ratio which I have stated; but so constant has been this ratio, of 1 to 2 1-2, according to my observation, that I have regarded any considerable variation from it as a pretty sure indication of malformation or disease. In a diagnostic and pathological point of view, therefore, I regard the *comparative frequency* of the respiration and the pulse as highly important.

In early infancy there is less regularity in this ratio. Owing to imperfect development of the lungs, or some other cause, it is not uncommon that an infant, with a pulse of 120 or 130, will have 40, 50, or even 60 respirations in a minute. Generally, however, the healthy ratio becomes established in the course of the first or second year. So in adults, the respiration is rendered frequent by many circumstances which can hardly be considered as diseased. Obesity, by preventing a free and large expansion of the chest, gives occasion to increased frequency of the respiration. The same effect is produced by a distension of the stomach or intestines, by pregnancy in females, and by any circumstance which prevents a free descent of the diaphragm. Any circumstance indeed, that prevents a full quantity of air from being received into the lungs with each inspiration, necessarily calls for more frequent respiration. As a general rule, if the respiration is deficient in fullness, the deficiency is compensated for by increased frequency."

Our limits preclude us from a full analysis of Dr. Hooker's essay, but we will give his results as presented into the closing pages.

Concluding Summary.

"The preceding essay, it is believed, establishes several important pathological principles, affording valuable diagnostic and theraputic indications, which hitherto have been but slightly noticed, or wholly unknown. The indications of the pulse have received much attention; but the variations of the respiration have been little attended to, and the relations between the respiratory and circulating functions have been almost wholly neglected.

The *comparative frequency* of the respiration and the pulse in health, which from constant observation, during a period of several years, I have ascertained to be 1 to 4 1-2, has not been commonly observed; and most of the indications afforded by *variations of this ratio* have been altogether overlooked.

A disproportionate *increased* frequency of the respiration has been shown to afford the general indication that there is some impediment to the respiration; which may be owing to, A. *Disorder of the lungs or air passages*, as pneumonitis, phthisis, œdema of the lungs, or any affection of the lungs which prevents a portion of them from being freely permeated with air, or any disorder of the bronchia or bronchial membrane which impedes the communication between the air and the blood within the lungs: or, B. Some *mechanical impediment* to the motions of respiration: or, C. *Imperfect function of the organic nerves* of the lungs.

A disproportionate *diminished* frequency of the respiration, which indicates *a want of energy in the nerves which control the respiratory motions*, has been shown to be common typhous fever, and in many other diseases.

The pathological effects of imperfect aeration of the blood, which had been treated of by Bichat and some subsequent writers, but which they scarcely noticed except as immediate precursors and causes of death, I have observed to be manifest through the progress of typhous fever, and many other diseases. What is commonly termed *congestion in the brain*, I have endeavored to show, is simply a deterioration of the blood caused by this imperfect aeration, a prominent example of which occurs in the disease termed congestive typhus. The effects of this imperfect aeration, depending upon disordered function of the different nerves concerned in respiration, have been traced in various diseases.

The common occurrence, and the injurious effects, of this imperfect aeration of the blood suggests the important general *therapeutic indication to remedy deficient respiration.* The medicinal agents are detailed which aggravate deficient respiration, by increasing the circulation, or by diminishing the respiratory function.

The use of remedies, with a view *to promote the arterialization of the blood*, it is believed, has never been distinctly treated of by any author, as a prominent object of medication. Though my 1st class these remedies—those which diminish the action of the heart and arteries—have been commonly known to possess this power over the circulation, still they have not been commonly employed with the view—a view which I consider as highly important in many cases—to obviate a disparity between the respiratory and circulating functions. The 2d and 3d classes of remedies—those which excite and invigorate the motor respiratory nerves, and the arterializing nerves of the lungs—have rarely, if ever, been recommended for those particular purposes; tho' I think it will be obvious to my readers, that many of the known valuable effects of these remedies are owing to such operations. The other three classes—4th. Ventilation; 5th. Remedies which obviate mechanical impediments to the respiration; and, 6th. Remedies which

excite secretions vicarious of respiration—though their general effects on the respiratory function have been known, have not been commonly employed for the distinct purpose of obviating deficient aeration of the blood.

In short, the general subject of the pathological relations between the respiratory and circulating functions has received little, very little attention. The writer hopes that he has at least shown the subject to be deserving of investigation."

3. *An Address delivered before the Medical Society of Tennessee at the eighth annual meeting at Nashville, on the 7th of May*, 1838, By Lunsford P. Yandell, M. D.

Professor Yandell of the Louisville Medical Institute, one of the seceding members of the Medical Faculty of Transylvania University, is a native of Tennessee, and was therefore, apart from his acknowledged talents, not unaptly selected by the society, to deliver its annual discourse. A leading, we might say *the* leading, idea of this production, is the contaminating association, in all ages, of superstition with medicine. The illustrations are, therefore, historical, and do not present the freshness which the orator might have spread over his address, had he given it a more indigenous character. We are advocates for the West, as fruitful in topics for profitable discussion; and entirely satisfied, that our author, is in all respects, qualified to treat any of them with success. The address, however, is not without allusions to the present and prospective condition of his native state, in the course of which the author makes the following appropriate appeal to his brethren of the Society.

"In the establishment of this improved order of things, it was the reasonable expectation of the founders of this Society, embracing as it does, a large share of the science of the State, that it would act a distinguished part. Its great purpose has never appeared to me, as it seems to have done to its members generally, to be the regulation of the practice of physic in Tennessee. Assuredly this is a most important object. A most desirable state of things will be that, in which the public will demand some test of qualification in medical practitioners. It will be a new era in the history of man, when he ceases to believe that to cure diseases, like Dogberry's reading and writing, comes by nature. And, in the distant future, the philanthropist has a glimpse of this perfection of human discernment. It will arrive with the completion of our high task—it will come when medical men are agreed touching all the great principles of health, disease, and cure—when they cease to impute to each other dishonest motives for their honest differences—when we shall have discovered the true key to the Temple of Health. There will be no contrariety of opinion then; but the

multitude will wait assiduously upon our steps, and press eagerly to the doors of the Temple—and the voice of the empiric will be heard in our streets no more. Mean time, independently of the regulation of practice, there is ample room and verge enough for the exercise of all the energies of the Society. Innumerable topics, deeply interesting to medical men—vitally important to the community, invite their investigation. Mortuary records, meteorological registers, the statistics of our most prevalent diseases—these remain to be furnished by the practitioners of the State, and it is the province of this Society to bring them out. Tennessee remains without a retreat for its insane, but it is gratifying to perceive that this cannot be much longer said. Humanity, as well as State dignity, calls for the early completion of this charity. The want of it has been the cause of great and manifold suffering. In all parts of the State, unfortunate beings, too poor to gain admittance into the asylum of a neighboring State, are chained in dark rooms, and log cabbins, and treated with kindness or cruelty, as their keepers or friends may chance to be intelligent and humane, or ignorant and unfeeling."

4. *Designs Nos.* 1 *and* 2, *for Marine Hospitals on the Western Waters.* By Robert Mills, Architect.

The readers of the Western Journal are aware, that it was the first periodical, either East or West, that stood forth as the advocate of Marine Hospitals in the latter. Several years have elapsed since, at the suggestion of Dr. Campbell of St. Louis, the subject was first broached. As might have been anticipated, the action of Congress has been tardy and ineffectual. *Something*, however has been done, but what, we are not exactly informed. The sites of several, it is said have been selected, and the *designs*, now before us, have been distributed, at Washington, by an architect, apparently for the inspection of the government. They are two in number, one for the accommodation of one hundred patients, the other for half the number. It is not our intention to examine them, but to express our opinion in favor of the smaller. Except in New-Orleans, it can never be necessary to have Commercial Hospitals in the West, of greater size than will accommodate fifty patients. By this limitation, the number of establishments may be much larger at the same cost, than if a more extended plan should be adopted, and the great *desideratum* is their multiplication. We ask the attention of our brethren to this view of the matter.

5. *Fiske-Fund Prize Dissertation of the Rhode-Island Medical Society, on Cholera Infantum, its Causes and Treatment.* By David King, Jr. M. D. June 1837. Boston.

We make from the 6th page of this dissertation, the following extract.

"*Causes of Cholera Infantum.*—In the first place, this disease has a specific miasmatic cause. Most endemic maladies, probably, arise from some emanation from the soil, owing to the dissolution of animal and vegetable matter. We know not the nature of these miasms, because they are beyond the reach of our senses and the analyzing process of art. It is probable, however, that, at first, the animal and vegetable matter is decomposed into atoms of effluvia; and that these atoms of effluvia enter, afterwards, into those peculiar combinations which constitute specific miasms. Our knowledge of the origin of febrile miasm consists, chiefly, in the established fact, that for its production are required a combination of four elements—animal or vegetable matter, atmospherical air, a high temperature, and water in a moderate quantity. But the circumstances of temperature and moisture, elevation, texture and depth of soil, which determine the specific form of the febrile miasm, are beyond the reach of our observation and experiment. We do not know all the combined causes required to produce "hepatitis on the coast of Coromandel, elephantiasis in Malabar, beriberi in Ceylon, Barbadoes leg in the Antilles, goitre among the Alps, the plica in Poland, cretinism in the Vallais," or cholera infantum in the large cities of the United States. The existence of the febrile miasm, producing cholera infantum, is known by its effects. It is confined to particular localities, supplied with materials for the production of miasm. Were the disease attributable to common causes, as heat, moisture, and atmospherical vicissitudes, this pestis infantum would be a pervading disease, through the whole range of the United States. But its great source is to be found, only, in our large cities, where heat, moisture, a semi-stagnant atmosphere, and filth, or animal and vegetable remains, spread over a large surface, readily produce the *malarious emanata.*"

Here we have a most happy generalization of hepatitis, beriberi, sore-leg, goitre, plica polonica, cretanism, and cholera infantum, under one unknown cause, modified by other unknown causes! Miasma, requires we are told, for its production, a combination of four elements—animal or vegetable matter, atmospherical air, a high temperature, and water in a moderate quantity; but where are these elements most abundant, in town or country? Undoubtedly in the latter, while cholera infantum prevails most in the former. Where is ague and fever most prevalent? Certainly in the country, and if *any* disease arises from malaria, it must be that fever. We can by no means grant, that our author has *established* the relation of cause and effect between malaria and cholera. For ourselves, we have seen but one circumstance, which appeared to stand in the relation of cause to that malady, and it is excessive heat. In Cincinnati, we have always observed it to

begin after the few first days of intense heat. It frequently *prevails* in the latter part of May; and endures through June and a part of July. *New* cases rarely occur after the middle of that month, and some times, not after the end of June. But why should not the heat of the surrounding country induce the disease? All we can say on this point is, that it does, when it is intense; but in the same latitudes, the heat of cities is generally greater than that of the country. We have seen very violent, and even fatal cases, in the country, where the soil and aspects were in no degree favorable to the development of miasma; but where and when the heat was intense.

"The peculiar miasm, which produces cholera infantum, acts upon the minute ramifications of the ganglionic nerves, in the lungs, and by means of the blood through the vascular and capillary systems. This primary influence of the miasm on the organic nerves is succeeded by excessive secretory irritation of the follicles of the mucous membrane of the alimentary canal, which constitutes the disease."

We should like to see a statement of the facts from which these conclusions are drawn.

About one third of Dr. King's dissertation is devoted to the treatment of Cholera Infantum. We had hoped, in this part, to have met with something new, but are disappointed. The whole presents little else than a loosely arranged collection of the remedies employed by Kuhn, Rush, Dewees, Parish, Chapman, Caldwell, Eberle, and Cartright, with so few of the authors own observations and experiments, as to disclose, that he has had but little practice in the disease, on which he has undertaken to write a prize dissertation. We cannot even speak with full approbation of the means he has adopted. They are too numerous, complicated, and bulky. Why did not our author quote the admirable little paper of Dr. Edward Miller of New-York, published nearly *thirty* years ago. Judging from our own experience, the small doses of calomel and opium recommended in that paper, are worth every thing else, and ought to supersede almost all other means, in the treatment of this malady. When fever is present, the opium should be omitted and calomel only administered. When the discharges are profuse, and exhaustion is threatened, the quantity of opium thrown in, should be such as to produce early and protracted, narcotism. This compound, with a blister or sinapism to the epigastrium, cold applications to the head and abdomen,

and great restriction in drinks, make up nearly the whole of the treatment which we have at any time found beneficial.

It is far from our desire to speak disparagingly of Dr. King's dissertation. It is undoubtedly a respectable compilation, and would have made a creditable inaugural thesis. We cannot, however, comprehend the propriety of awarding prizes for such essays. Prize-money should be made to meet the expense of original experiments; not of books, to furnish excerpts. We trust that Dr. King will unite with us in this sentiment, and that he will direct his efforts upon the production of new facts—it is they only that enlarge the boundaries of our science.

6. *Statistical Observations on the number of blind in Pennsylvania and the United States.* By SAMUEL HAZARD, Esq., of Philadelphia.

[Transactions of the Medical Society of the State of New-York. 1838.]

Our friend Hazard has condensed into those few pages a great amount of statistical information, on a deeply interesting subject. It is quite impossible to abridge his paper, and our limits do not admit of its republication, but we shall transfer to our Journal a few of its first pages entire.

The tabular view he has given ,presents a melancholy aggregate of blind persons, and still, we are convinced, it falls short of the reality. What is the duty of the profession and of society on this subject? It is to make more ample preparation for the treatment of diseases of the eye, and for the education of those who are permanently blind. It must be admitted that a great many physicians, who, as general practitioners are respectable, fall short in the knowledge of the anatomy, physiology and diseases of the organ of vision. We affirm the fact without inquiring into the cause; and we pronounce it discreditable, without stopping to consider on the *policy* of our denunciation. At the same time, it must be confessed, that such an amount of special preparation is necessary to the successful treatment of ophthalmic diseases, that without the spirited co-operation of society, the profession cannot accomplish all which should be done. Endowed Infirmaries should be instituted in all our principal towns, where those who labor under chronic maladies of the eye, may be assembled, and placed in the circumstances, without which they are seldom cured. It is almost as necessary to take away the liberty of this class of

patients, as if they were lunatics. Their appetites are generally good, their locomotive powers unimpaired and their visual instincts so strong, that they will, unless physically restrained, perpetually violate almost every rule laid down for their government. But we must come to the table which Mr. H. has compiled with so much care and labor.

Table showing the number of Blind in the United States: also, the relative proportion to the population, &c.

STATES.	Total No. Blind.	Proportion to whole population—1 to	Proportion of blind whites to whole white population—1 to	Proportion of colored blind to whole colored population—1 to	Proportions of colored to the whole population.
Maine,	160	2497	2505	1177	1 in 339
New-Hampshire,	105	2565	2559	.....	1 " 443
Massachusetts,	223	2737	2768	1409	1 " 86
Rhode-Island,	64	1518	1672	447	1 " 27
Connecticut,	195	1526	1540	1152	1 " 30
Vermont,	51	5503	5485	.....	1 " 317
New-York,	724	2650	2918	547	1 " 43
New-Jersey,	227	1413	1464	734	1 " 16
Pennsylvania,	503	2680	2758	1369	1 " 35
Delaware,	29	2646	3205	1741	1 " 4
Maryland,	271	1649	1980	1257	1 " 3
Virginia,	793	1527	1956	1180	1 " 2
North-Carolina,	384	1922	2120	1647	1 " 3
South-Carolina,	238	2442	2528	2377	1 " 2
Gerogia,	273	1893	1979	1789	1 " 2
Alabama,	116	2568	2800	2482	1 " 2
Mississippi,	56	2439	2817	2135	1 " 2
Louisiana,	113	1909	2485	1640	1 " 2
Tennessee,	213	3281	3044	3950	1 " 4
Kentucky,	252	2729	3064	2050	1 " 3
Ohio,	238	3940	3993	1596	1 " 98
Indiana,	87	3942	3887	1816	1 " 94
Illinois,	39	4037	4443	596	1 " 66
Missouri,	37	3766	4251	2566	1 " 5
Michigan,	5	6327	6269	.....	1 " 108
Arkansas,	10	3038	3209	2358	1 " 6
Florida,	19	1828	6128	1020	1 " 2
District of Columbia,	19	2096	2506	1534	1 " 3
	5444	2363	2650	1584	

"Upon a review of the above table, our attention is first directed to the great difference which exists in the relative proportions of the blind to the population, in the several States, varying from 1 in 1413 to 1 in 6327. The greatest proportion of blind persons being in New-Jersey, and the smallest in Michigan.

On comparing the proportion of the *white* blind with the *colored* blind, the difference is still more remarkable; the largest proportion of the former, being in New-Jersey, viz: 1 in 1464, and the smallest in Michigan, 1 in 6269; while the largest proportion of the *colored* is in Rhode-Island, 1 in 447, and the smallest in Tennessee, 1 in 3950.

In the State of Tennessee alone, is there are an excess in the proportion of *white* blind over the *colored*, the former being 1 in 3044, and the latter 1 in 3950. In South-Carolina, the proportion is nearly equal, the *whites* being 1 in 2528, and the *colored* 1 in 2377. In Alabama and Georgia, also, the proportions are not so different as in the other States—the *whites* being in the former 1 in 2800, and the *colored* 1 in 2482, and in the latter 1 in 1979 for the *whites*, and 1 in 1789 for the *colored*. In most of the other States, the excess in the proportion of the *colored* is very remarkable.

In the whole population of the United States, the proportion of blind is 1 in 2363—of the *white* blind to the *white* population 1 in 2650, and of the *colored* blind to the *colored* population 1 in 1584.

How are these differences to be accounted for?

Geographical position may not fully explain it, yet some facts in this respect are worthy of notice.

Those States on the Atlantic coast which are more fully exposed to the influence of the sea air, have the largest proportion of blind; as for example:

Rhode-Island,	1 in 1518
Connecticut,	1 in 1526
New-Jersey,	1 in 1413
Maryland,	1 in 1649
Virginia,	1 in 1527
North-Carolina,	1 in 1922
Georgia,	1 in 1893
Florida,	1 in 1828
Louisiana,	1 in 1909

The proportions diminishing as we proceed South.

As we proceed into the interior from the sea-coast, the proportion decreases still farther, as for instance.

Pennsylvania,	1 in 2680
Kentucky,	1 in 2729
Tennessee,	1 in 3201
Arkansas,	1 in 3038
Missouri,	1 in 3796

Proceeding still further from the sea-coast, and approaching those great reservoirs of fresh water, the lakes, a further decrease in the proportion occurs, as for example—

Indiana,	1 in 3942
Ohio,	1 in 3940
Vermont,	1 in 5503

Michigan, (surrounded by lakes)	1 in 6327

In those States, a portion only of whose territory is situated on the Atlantic, while a principal portion of it extends into the interior, or borders on the lakes, the proportion of the blind is about a medium between the two extremes; for instance—

Maine,	1 in 2497
New-Hampshire,	1 in 2565
Massachusetts,	1 in 2737
New-York,	1 in 2650
Delaware,	1 in 2646
South-Carolina,	1 in 2442
District of Columbia,	1 in 2096
Mississippi,	1 in 2439
Alabama,	1 in 2668

It is proabable, therefore, from the foregoing facts, that if a comparison were made, between the portions of these States situated on the sea-coast, and those portions more remote from it, the proportions of the blind, within the influence of the sea-air, would be in excess. This is verified so far as we have made the examination."

7. *A visit to the Red Sulphur Spring of Virginia during the summer of* 1837, *with observations on the waters.* By Henry Huntt, M. D.

Three or four years since we noticed a pamphlet by Dr. H. on change of climate in Pulmonary Consumption, and on the use of the waters of the Red Sulphur, on the treatment of that malady. The pamphlet now before us contains many additional observations on their efficacy in diseases of the lungs. They are adapted to states of subacute inflammation whether connected or not with tuberculation of the organ. Passing by many cases illustrative of their power in this respect, we shall extract such paragraphs as present the results of Dr. Huntt's experience and inquiries.

"The Red Sulphur Water is decidedly sedative in its effects. It subdues chronic inflammation, tranquilizes irritation, and reduces the frequency of the pulse in the most astonishing manner.

It has been considered peculiarly adapted to the cure of pulmonary diseases, and it is true, that it has a most beneficial influence in most cases of this disease; but its good effects equally extend to all cases of sub-acute inflammation, whether seated in the stomach, liver, spleen, intestines, kidneys, bladder, and most particularly in the mucous membrane. In fact, nature never yet gave to man, a remedy, capable of more extensive application, nor better calculated to relieve a larger class of diseases."

* * * * * * * * * * *

"During my visit to the Red Sulphur, every day was devoted to the investigation of the various diseases which afflicted the visiters at that place; noting particularly the effects of the water in different diseases.

Most of the cases, were various forms of pulmonary consumption. In the earliest stage of tuberculous disease the patients generally complained of abdominal plethora with cough, some oppression, and restless nights, with frequent pulse. In all these cases, where the water

was taken in such quantities as to operate on the bowels for a week or ten days, and afterwards increasing the quanity so as to act freely as a diuretic, and the patients were abstemious in their diet, and took exercise regularly, a rapid improvement was most generally the consequence. On the contrary, those who used but little exercise, and indulged their appetite without restraint, were slow and tedious in their convalescence. Let it be impressed on the mind of all tuberculous patients, that *sedentary habits* are among the most powerful causes of tuberculous diseases.

Many persons arrive at the Red Sulphur, who are not prepared to use the water, in consequence of high inflammation, or congestion of the lungs, or other organs, attended with pain in the side, constriction at the breast, or hot, and restless nights, with a quick, sharp pulse; all such cases must have the vascular excitement subdued, before the water can be taken with any advantage. I saw several of those cases under the management of *Dr. Saunders*, the resident physician of the place who treated them very successfully, by means of bleeding, local and general—emetics of ipicac before bed-time—blisters, and occasionally the blue pill.

Most of the visiters at the Red Sulphur this season were laboring under tuberculous consumption, of the second, or middle stage, many of them had visited the Spring one or two seasons, and there was scarcely an exception among them, who had not experienced one or more attacks of hœmoptysis; *hœmoptysis* may generally be considered as an indication of tubercles in the lungs. Those who had visited the Spring before, would say, that they returned home apparently cured, cough, night sweats, expectoration, frequent pulse, all relieved —a good appetite restored, and flesh increasing daily. Towards the spring season the pulmonary symptoms would commence to kindle up again, and by June or July, it would become necessary to repeat the visit to the Red Sulphur; although the symptoms were much less aggravated, and the constitution much less enfeebled than during the previous season.

The water of the Red Sulphur seems to act by *soothing* irritation, lessening the frequency of the pulse, and by subduing the inflammation of the tissues in contact with the tubercles; and thereby renderring the tubercles harmless; and also by suspending that tendency of the system to generate, or deposite tuberculous matter.

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The cases generally, laboring under this stage of pulmonary disease, improved in their health, particularly, if they remained long enough at the Spring, restricted themselves to a proper diet, and took sufficient exercise; but there were a few among them, who took little, or no exercise, and gave unlimited indulgence to an inordinate appetite. In such cases, I took no interest, and observed but little change in their appearance.

On examining the visiters laboring under pulmonary disease, I observed that all those patients who drank the water so as to act freely on the bowels, for any length of time did not improve in their health, because, active purging is not proper for the lungs in this disease. The water must be drank in such quantities as to act freely on the kidneys.

There seems to be an intimate association between the lungs and the kidneys, and the kidneys seem to be the great emunctories by which the lungs are relieved in all pulmonary diseases; this idea has been repeatedly suggested to me, in my attendance on patients laboring under this disease; on enquiring into their condition, they have frequently said, "I feel much better to-day, I have had a most copious flow of urine which has afforded me great relief." This view of the connexion between the lungs and kidneys, has been confirmed by witnessing the diuretic effects of the Red Sulphur Water in pulmonary diseases—I have a friend who is a physician, and who has labored, more or less, under pulmonary disease for twenty years. He informed me that whenever his lungs were disturbed by irritation, he always resorted to "cooling diuretic medicines for relief."

There were but few persons laboring under the third or last stage of tuberculous disease, who visited the Red Sulphur this season, and among those few, there was scarcely a case that derived any advantage from the use of the water. When tuberculous disease arrives at this stage, and the constitution is broken down, it is not only *useless* but *cruel* to send the patient to the Red Sulphur. I am sorry to say, that several of my patients in this condition, by my advice, visited the Red Sulphur this season, and I witnessed the bad effects of the water in their cases, as well as in the cases of others of a similar character. They were laboring under that peculiar irritation, and perhaps ulceration of the bowels, so common in this stage of the disease; they were unable to drink but a small quantity of the water, and the consequence was, that the bowels were purged and griped, the secretion of the kidneys was not increased, and the patients grew worse daily."

8. *Memorial from the Pennsylvania Lyceum, (to Congress) asking an appropriation to aid in the advancement of Meteorology.* Read and referred to a select committee of April 20th, 1838.

If we have not made known the labours of Prof. Espy, of the Franklin Institute, Philadelphia, on the subject of the cause of storms of rain, hail, and snow, it is not because we underrate their value and interest. We are not informed whether Congress has made an appropriation for the purchase of the instruments referred to in this memorial, and its appended documents. We trust the memorialists will ultimately succeed, and to their aid we would invoke our readers generally. In the following extract from their memorial, the object in view and the means solicited are set forth.

"From all these facts, in connection with those detailed in our previous reports, it is, we think, abundantly proven that the air moves inwards towards the centre of great rains, and consequently upward in the region of the cloud. Nor is this inward motion difficult to account for. It has been long known that the barometer stands low in the middle of great storms, and nothing is more plain than that the air will run on all sides toward the point where the barometer stands lowest, with a velocity proportional to the square root of the depression. And as this air mounts upwards over the point where the barometer stands lowest, a condensation of the vapor must take place, from the cold produced by diminishing pressure as it ascends. Now, the chairman of

this committee has shown, by calculation from acknowledged data, that for every pint of water which is formed by condensation of vapor, the cloud itself is expanded 7,600 pints by the latent caloric given out at the moment of condensation. Thus will the upward motion in the cloud be continued as long as air highly charged with vapor runs in below.

It is also easy to explain why the base of the cloud, during this rapid motion of the air upwards, remains nearly at the same level; for, so long as the dew-point of the air at the surface of the earth, which supplies the ascending column with vapor, remains the same if the temperature of the air is the same also, it will have to ascend to the same height, before cold enough is produced by expansion to cause condensation of the vapor. This height is found to be about 100 yards for every degree between the temperature of the air and the dew-point, unless when the cloud becomes of great perpendicular depth, when the base sinks a little from the levity of the cloud.

The quantity of depression of the vapor as well as of the air, after due allowance is made for the fall of the dew-point from the expansion, is nearly 400 yards for a depression of the barometer one inch, on the supposition that the temperature of the air sinks 4 deg. for a diminution of the pressure equal to an inch of mercury.

A depression of near two and a half inches has been recorded in a spout accompanied with hail nine inches deep; hence the base of the cloud would descend in the centre near 1,000 yards; and of course, if the dew-point and temperature of the air were not more than 10 deg. apart, the cloud would reach the earth, and exhibit itself in the form of an inverted cone, expanding as it goes up, and by its rapid motion carrying up large drops of rain above the region of perpetual congelation, and throwing them out at the sides, in the form of *hail.*

From the principles here developed, it will be easy, when a great storm springs up, or comes within disturbing influence, to tell in what direction it is raging; for the direction of the wind points it out. An exception to this general principle was mentioned and explained in our last report. The connexion also between volcanoes and rains is no longer mysterious: for an upward motion of the air is produced and kept up by the volcano, the result of which must be a condensation of vapor, unless the dew-point is very low. So powerful is this tendency, that in South America a dry season is sometimes changed into a rainy one by the bursting out of a volcano. From these brief hints, we trust it will be acknowledged that something has been gained explanatory of the phenomena in question. But we must not stop here: it is not enough to know *where* it is raining at a given time; we must know *when* it will rain where we are. For this purpose, it is of primary importance to know the direction in which storms move, and also their velocity in all the different seasons of the year.

We would suggest as the most effectual, and perhaps the only, means of obtaining this end, an appropriation by Government for the purchase of meteorological instruments, to be presented to those academies, schools, and colleges, that would pledge themselves to keep a journal of the weather, according to a prescribed plan, for five years,

and send a monthly statement to a meteorologist to be appointed by the Government."

9. *The Epidemic Yellow Fever of Natchez. In Medio-veritas. An Essay read before the Jefferson College and Washington Lyceum, December 2d*, 1837. By J. W. MONETTE, M. D.

The first 50 pages of this essay are chiefly devoted to a general survey of the facts which relate to the remote causes of Yellow Fever. We say *causes*, in as much, as the author is of the school of Hosack, and believes the concurrence of an indigenous and a foreign cause to be necessary to the production of the disease. Thus the arrival of a vessel with a certain kind of atmosphere, at a place where heat and moisture and filth, and a crowded population, have already contaminated the air, may be followed by the developement of the fever, when, neither would of itself, have been sufficient. This imported atmosphere acts as a ferment or leaven. We have not time or space, at present, to inquire into the reality of this hypothesis; but that our readers may do it for themselves, we shall present our author's doctrine in his own words.

"*Corollaries.*—If the views herein advanced be correct, the following are legitimate deductions.

I. That the miasm, or gaseous matter which is essential to the production of epidemic yellow fever, is generated only while the extreme temperature in the shade, is at least up to 88 deg. of Fahrenheit; and that so long as there is sufficient agitation and change of the air by winds, it will not accumulate in sufficient quantity to produce yellow fever as an epidemic: that when sufficient miasm is produced and accumulated, the malarious combination, which likewise requires several days of calm, sultry weather, will proceed at a still lower temperature.

II. That the miasm of yellow fever, is, *per se*, in a pure atmosphere, probably innoxious; but acquires active morbific properties by combining with sultry, hot air, which has been exhausted by respiration, and charged with human exhalations; and that it then becomes *malaria*, or infectious air, which is an active predisposing cause, as well as a proper "*nidus*" for the reception and evolution of the infection of yellow fever.

III. That this malarious condition of the local atmosphere of any city, or portion of a city, may be so concentrated as to produce a strong predisposition to yellow fever in many of the inhabitants, without actual disease, until a few cases are excited into action by highly exciting causes, when *infection* is generated, and speedily the malarious district becomes the infected district: which result would have been prevented by a storm, or change of weather previous to those cases.

IV. That when the malarious combination is sufficiently concentrated for this purpose, a large quantity of *infected air*, brought from an infected district, or a large number of cases of yellow fever introduced from another point, will convert that malaria into infected air, and produce an epidemic likewise.

V. That, consequently, although yellow fever is very often a dis-

ease of local origin, it *may*, under peculiar circumstances, be carried from one city to another, and there propagated.

VI. That accordingly epidemic yellow fever may be averted sometimes by one or all of the following measures, enforced at a time, when, according to the principles herein set forth, the malaria is forming rapidly; viz:

1. By a dispersion of the greater portion of the citizens to the country.

2. By removing from the city, and especially from the districts usually infected, all *strangers*, or those who have not become acclimated by a residence of two or three years, and who would in course be the first attacked.

3. By prohibiting the introduction from foreign places of infected air, or *fomites*, or patients laboring under yellow fever, during the prevalence of malarious accumulations.

VII. That the vicinity of any of the large bayoux, or gullies about Natchez, is more dangerous as a residence than more remote points: that these ravines are the reservoirs in which the malaria mostly accumulates before it is dispersed through the city by gentle winds: of course persons should avoid them in the sultry, autumnal months.

VIII. That this miasm, or even the malaria, is not the result of animal or vegetable decomposition; or of exhalations from city filth and such like sources.

IX. That the general atmosphere in the country may be as healthy as ordinary, while in the city yellow fever may be sweeping off the population like a pestilence; of course, that the disease is the result of some local atmospheric contamination.

X. That when the infection has spread, or is beginning to spread, the only safety for those who are strangers, or unacclimated to yellow fever infection, is speedy flight: for no disinfecting agents heretofore known, or tried, possess any power to destroy the infection of yellow fever in the general air, cold alone excepted.

XI. That those who seek safety in flight, should carry with them as few bulky, light articles, of a woollen or porous texture as practicable, lest they might generate an infected air in their retreat. That they should not return to their houses until after cold winds and frosts, during which their rooms, bedding, &c., have been freely exposed to ventilation and to the action of the frost."

The most valuable part of the essay of Dr. Monette is the narrative, or that which gives a "sketch of the history of the different yellow fever epidemics of Natchez," from 1817 to 1837, a period of 20 years. Throughout this lengthened term, the years in which the disease prevailed as an epidemic, were 1817, 1819, 1823, 1825, 1829 and 1837. With much industry and apparent fidelity, Dr. Monette has collected a large mass of meteorological and other observations, which seem to have a bearing on the production of the fever; and make an important contribution to the medical history of Natchez and its vicinity. We could wish that the other towns of the great Valley had historians of equal zeal and ability with our Mirsissippi friend.

MISCELLANEOUS INTELLIGENCE.

ANALECTIC, ANALYTICAL, AND ORIGINAL.

1.—ANALECTIC.

AD SYLVAS NUNCIUS.

1. *Observations on the Puriform Opthalmia of the New-Born.* By M. D Carron du Villards.—In this paper I shall consider the ophthalmia of the new-born, more generally known under the name of purulent ophthalmia of children; a name which it has preserved thro' routine and custom, although the illustrious Saunders said, thirty years ago, that the designation of *puriform* should be given to it, on account of the nature of the disease and of the fluid secreted. This ophthalmia, nosologically speaking, ought to be considered as a catarrhal conjunctivitis, which is confined to the mucous membrane until it acquires a certain degree of intensity; then the parts which bear the nearest relation with the conjunctiva become in their turn diseased, a circumstance which gives to this affection all the importance we have pointed out.

In fact, when we devote ourselves for several years to the study of opthalmology, we are astonished at the frequency of this disease, and we are still more frightened to see the number of children who lose their sight in consequence of it.

In a great number of foundling hospitals, and especially in that of Paris, it exists epidemically; and if a great number of children did not sink under the consequences of it, there would be a much greater number of "born blind;" an expression generally admitted, but perfectly false, since the great number of children denominated *blind from birth*, do not come so till after the first months of existence. For a length of time, purulent opthalmia was attributed to syphilis; the assertion with respect to the generality is quite erroneous, since not only authors, but my own experience also, correspond in the conviction that this affection is very rare in children born of infected mothers, whilst it is very frequent in those whose mothers were perfectly healthy. Nay more, I

have observed in a great number of children born of syphilitic mothers, a multitude of venereal phenomena of the skin, on the scalp, on the genitals, and seldom in the eyes; in fact, the discharge must be very copious, in order that the fœtus, passing through the vaginal canal, through the midst of the secretions produced by the accouchement, and surrounded as it is by the amniotic deposits, be infected, since it does not open its eyes till after its passage.

Very often, also, this disease appears one or two months after birth, at a time when the child enjoys good health, or the mother has not even a puerperal discharge. We are very far, however, from denying contagion, since we have seen opthalmia gonorrhœal in the beginning, and then terminating by very decided syphilitic phenomena. As to the possibility of transmission from one individual to the other, it may take place from the child to the mother or to other children. In young animals it follows the same progress; and, in the theses of MM. Chessaignac and Michel, we find very remarkable cases of inoculation of the purulent discharge from eye to eye.

We ought to consider the very peculiar position in which the new-born child is found; scarcely has it cleared the "vaginal *tunnel*," in which it was shut up, at a temperature of 36 deg. and more, of Rheaumur, than it is on a sudden exposed to a decrease of temperature, which is often at least half lower.

This is so true that in a great many circumstances the disease is complicated with a more or less extensive induration of the cellular tissue, coryza, and otorrhœa, to which may be attributed most of the cases of deaf-dumbness. We may invoke also the transgression of hygienic principles, exposure of children to currents of air, or to cold washings. In general, in England, accoucheurs, midwives, and the majority of people out of the profession of medicine, consider this disease as the effect of a change of temperature, known under the name of *a cold*. This opinion is also mine, and in consulting my notes, as well as my recollection, I remember very well that not only at the foundling hospitals of Pavia, Milan, and Paris, but also in private practice, ophthalmia of the new-born is much more common when there are numerous and rapid atmospheric variations. The reason will now be understood why this disease is much more frequent with children of the indigent class, where so many things, even indispensable to life, and still more to the welfare of the new-born individual, are wanting. The irritation of a vivid light plays also a prominent part in the production of purulent ophthalmia. Hence we recommend to persons required to nurse or receive new-born infants, not to expose them to a strong light, nor to lose too much time before they bestow on them hygienic cares. We cannot recommend them too strongly not to wash the eyes with cold water, but to employ tepid water beaten with the yolk of eggs, a mixture admirably adapted for disengaging the face and eyes from the amniotic deposite with which they are often covered.

The child must be clothed sufficiently warm to accustom it gradually to the changes of temperature; and if the infant has remained a long time in the passage, if the face be injected, we must not fail to draw some spoonfuls of blood from the umbilical cord; for Professor Am-

mon, of Dresden, in researches which are replete with interest, has proved that in a great number of children ophthalmia of the new-born is due to forced injection of the membranes of the eye, accompanied with an insensible sanguineous exhalation, which colors red not only the vitreous humour, but also the crystalline.*

In a great number of circumstances the disease commences by a coryza scarcely sensible, and is betrayed only by slight sneezings. This disease remains stationary for some days, then the eye becomes watery, the eyelids swell, and acquire a rosy tint. At this period, if we examine carefully the small internal fossa of the commissure of the eyelids, commonly known under the name of *larmies*, we perceive in this little anfractuosity a small fragment of dried slightly glutinous mucosity, resembling concrete honey. Gradually this secretion augments, appears in different points of the palpebral commissure, implicates the eyelashes, and glues them together. Then the child begins to experience difficulty in opening the eyelids; they become immovable, and consequently do not allow more of the newly secreted puriform fluid to be thrown out.

When we have seen a certain number of ophthalmiæ in the new-born, we acquire the habit of recognising them from their commencement, before even those who are associated with or nurse the child may have suspected them. It is nearly fifteen years since I saw M. Baron, Physician of the Foundlings, distinguish a puriform ophthalmia, by only observing a red injection across the outer surface of the eyelids; on the other hand the small mucous concretion is a symptom which has never failed me. In proportion as the discharge accumulates between the eyelids, the latter swell and form a kind of pouch, in such a manner, that upon separating them, a milky liquid is seen to ooze instantaneously, which becomes thicker and thicker as the inflammation becomes more intense. Often, at this period, small active hemorrhages take place, which are owing either to interstitial exudations, or to slight venous or arterial ruptures. Now, as the eyelids in the new-born are excessively lax and permeable to liquids, and as the conjunctiva only slightly adheres to the globe of the eye, it is easily invaded by the blood. Then those chemoses are formed every where, accompanied by villosities, which not only produce partial strangulations, but also keep the puriform matter in contact with the cornea, which is then, as is known, soft and thin, and slightly resisting. We ought not to be surprised to see it become dull, assume a grayish tint, become puffed up, ulcerate, split, and in a short time burst, and give rise to all the unpleasant symptoms which accompany those different lesions of the cornea, of which I shall abstain from speaking here.

From the period at which the disease has acquired a certain degree of intensity, the patient is much disturbed by light, and obstinately closes his eyes while he is exposed to it, and not until he is in a dark place does he endeavor to open them. It is truly astonishing that M. Sichel denies this kind of dread of light *(photophobie)*; which is ad-

*Ammon, Journal d'Ophthalmologie, ii. 23. On the Red Coloration of the Membranes of the Eye in the New-Born, and its influence on the Production of Ophthalmia in the New-Born.

mitted, however, by all those who found their opinion on well-observed facts and not on preconceived ideas. Billard, who had examined with the most scrupulous attention a great number of children affected with puriform ophthalmia, suggested the examination of their eyes during sleep, which may be done with the same facility.*

When we recognise a purulent opthalmia at its commencement, nothing is easier than to limit its action. Some well-understood hygienic cares, lotions of a glassful of cold water acidulated with two or three drops of lemon juice, are enough to afford a sufficient astringency and disperse all traces of purulent discharge. But we should be very careful in applying poultices of crumb of bread, pommes de reinette, white cheese, &c., the results of which are immediately to produce œdema of the eyelids and augment the secretion of mucus.

We should also forbid the nurses to drop their milk into the eye, for this liquid mixed with mucus not only forms a magma which prevents more and more the movements of the eyelids, but also ferments on the spot and becomes a new cause of irritation. For a great number of years I have very promptly put a stop to the inflammation, and mucus secretion, by injecting between the eyelids through a small ivory syringe, some spoonfuls of the following collyrium:—Aqueous infusion of red roses, four ounces; soot, prepared according to my process, eight grains; lemon juice, four drops. I obtained a very rapid cure on the grand-daughter of a *chef de division* of the minister of finances, affected with gonorrhœal ophthalmia fifteen days after her birth, and which was sent to me by a skilful accoucheur, M. Baudelocque, the nephew. At several times during the day the eyelids must be raised to cleanse away the puriform matter. When the disease acquires a certain degree of intensity, we need not be afraid to apply leeches to the temples, and permit the discharge of much blood. Saunders had great confidence in this means, which often succeed with him.

I cannot too strongly blame the conduct of those who, from the example of M. Lawrence, place leeches upon the eyelids themselves.—The motives for my censure repose on the following fact. The slightest traumatic cause is sufficient to induce an œdema of the eyelids in the new-born. The biting of a leech adds to the œdema an ecchymosis and a local puffiness, which does not allow of the eyelid being raised so as to cleanse away the pus. On the other hand, the leech crosses from one part of the eyelid to the other, and wounds the eye; this I have seen frequently happen.

When the symptoms are urgent, we must, in order to arrest the mucous secretion, inject between the eyelids Bates's solution, which possesses very styptic qualities. I have seen this medication succeed wonderfully.

At the same time, we conjoin with this treatment purgative agents, such as the compound syrup of chicory, or rather of peach flowers.

When the disease is decreasing, we may produce a slight rubefaction behind the ears by means of the application of the *pommade* de Lausanne. If by this means we succeed in preventing perforation of the cornea, alarm must not be felt for the transparence of the cornea;

*Billard and Lawrence.—Treatise on Diseases of the Eyes.

this gradually returns of itself, and it has fallen to my lot to see cured, in five or six months, children whom I had considered as entirely deprived of light on account of loss of that transparence.

I have very frequently made use of the solution of nitrate of silver, but with much less advantages than soot, or Bates's solution. When ulcerations, perforations, staphylomas, &c., appear, they must be treated by the usual method. The employment of codfish oil is appropriate for resolving the interlamellar effusions; but to obtain advantage from this medication, all inflammatory symptoms must be watched. I terminate this article in the hope of inducing all practitioners to disperse at their commencement accidents which may bring into jeopardy the eyes of the new-born. I shall account myself extremely happy when I learn that my hope has been realized. It is always with this view that I write.—*Bulletin Gen. de Therapeutique.—Dunglison's Intel.*

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2. *On Inversion of the Uterus.* By Thos. Bradford, Surgeon to the Manchester Lying-in Hospital.

Causes of Inversion.—This accident has been attributed to causes purely mechanical, the uterus being unresisting, and passively obedient to their influence. The practice of pulling too early and violently at the funis, after the expulsion of the child, before the uterus has contracted, so as to detach and expel the placenta, has been generally considered as the cause of inversion; but we know that the accident happens before any force has been applied to the funis. * * * * It has occurred when the patient has been delivered of a dead child, the funis so putrid as to break with a very slight effort. It has been found before the cord was separated, and the child given to the nurse. In the practice of Ruysch, this circumstance took place after he had extracted a dead child, &c. These circumstances show that there is a power inherent in the uterus to become inverted. The pulling of the funis is so common a practice amongst our midwives and done without the least consideration of the condition of the uterus, that, if it was so frequent a cause as is usually stated, inversion, instead of being one of the most rare, would be the most common accident in midwifery. Some writers have thought that a short funis is a frequent cause of inversion; whilst others think, in order to act, it must be inserted in the centre of the placenta, and that this mass must be attached to the fundus uteri. It is evident, if brevity of the cord is capable of producing so serious an accident, these peculiarities will greatly add to its influence. But, amongst the published cases of inversion, there is, so far as the writer knows, but one where this shortness existed. It often occurs without diminished length in the cord; whilst, on the contrary, children are frequently born where it is very short, and yet no such event happens. The funis has been ruptured, and the placenta disrupted, and yet the uterus was not inverted.

In order that the causes which have been now alluded to could operate effectually to produce inversion, there must be such condition of the uterus present that it becomes tacitly obedient to their influence. Most systematic writers, as also others, have supposed such to be the case. They have said that the uterus, previous to inversion, is in a

state of extreme relaxation, exhaustion, or collapse, and that it offers no resistance to any force applied by the funis. These opinions are at variance with that of the writer.

It appears to the writer that the uterine pain, diminution of bulk, firm resisting feel, sudden formation, and rapid protrusion, warrant him in the deduction that the *fundus* and *body* of the uterus, so far from being in a state of *collapse* or *relaxation*, are really in a state of *unnatural excitement* and *action*. But this is not the case with the os uteri; on the contrary, it is soft and yielding, as we find it offers no resistance to the coming down of the tumour, whose protrusion is forcible and rapid. If these statements be true, it is evident that the fundus and os uteri are in directly opposite conditions: the former is in a state of violent contraction, the latter in a state of relaxation; and that this relative difference in these two parts of the organ is indispensably necessary to exist where inversion occurs.

From what has been stated, it may be concluded that quick labor, whether natural or artificial,—a disturbance of this process in any of its stages,—or any of those circumstances which produce irregular contraction of the uterus, are, singly or combined, the causes of inversion.

Treatment.—When the uterus is inverted only in a slight degree, the reduction may be accomplished with great ease, and the attempt should be made as soon as it is discovered. As the fundus uteri has not, or only slightly, passed through the os, the placenta cannot wholly protrude through this orifice, and, consequently, the fundus should be returned before the placenta is separated. For, if an attempt were made to detach the placenta, the operation must be slow, uncertain and incomplete, and the danger of hemorrhage incurred, or a greater degree of inversion produced. When the hand is introduced through the os uteri, the fingers should be slightly bent, so as to form a kind of crutch, to carry up the fundus, which sometimes rapidly springs up. The placenta is now to be separated, and the hand retained until the uterus contracts.

In the treatment of this accident, (great inversion,) the great object to be constantly kept in view is to attempt the re-inversion, as soon as possible after the occurrence. But in general, the placenta adheres to the inverted organ, and the question is whether it should be separated or not before or after the reduction. It is an important point to settle, especially as there is such a difference of opinion upon the subject. * * * The dread of hemorrhage is the reason assigned why the placenta should not be first detached, but the writer trusts that the cases he has adduced, and the references he has made, are sufficient evidence to the contrary. In no case has this dreaded effect been induced, or even aggravated, by a *complete* separation of the placenta. The uterine vessels are as effectually constricted under this accident as when the organ is in its natural situation, if the placenta be entirely detached; and flooding is produced here, in the same manner as in ordinary cases, by a partial separation or disruption. As the greatest disadvantage arises from failing in our first attempt, it is the more necessary that every impediment should be removed, so that we can proceed with the greatest chance of success. By delay, the organ becomes less fit to

bear the operation, not only from the increased size of the fundus and the contraction of the os, but also from the increased sensibility and irritability which it has acquired, even previously to its becoming actually inflamed. The attached placenta must increase the obstacle, because the fundus cannot be so freely and sufficiently compressed. The result of free manipulation would lead to partial detachment and disruption, and consequently to flooding. By detaching the placenta, great advantages are gained; the bulk of the part is diminished, the operator is enabled further to reduce the size of the fundus itself by compression; and he has more freedom to judge of the changes he has effected.

When the placenta is detached, our next object should be to attempt the reduction of the general bulk of the tumour, by compressing it. We are indebted to Mr. C. White, for this method. The plan recommended by some writers, to push the fundus directly upwards, should not be adopted. There are strong reasons to think that the fundus is, after the os uteri, the most irritable part of this organ. When the accident has existed a short time, pressure upon this portion induces pain, bearing down, and hemorrhage; but the body may be taken hold of and compressed. If we could press the fundus upwards, and thereby dimple it within itself, we should find ourselves opposed by a double inflexion; for the body would be grasped by the os uteri, and the fundus would be within the body. It is obvious that our force should be directed so as to act upon the angle of inflexion, or where it turns into itself."

It will be found that the tumour will freely pass through the os externum, and, as only one hand can be admitted into the vagina, the chief compression should be effected whilst it lies externally. And, as the upper part of the vagina descends along with the uterus, no real effect can be produced until it is made tense by carrying this organ upwards. When it arrives at this point, resistance is met with, but, by keeping a steady pressure upwards, the inflected portion of the cervix then yields, and it gradually recedes, followed by the hand of the operator, until the reduction is completed.—*Dublin Journal of Medical Science.—Dunglison's Intelligencer.*

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3. *On the Nature and Treatment of Nervous Exhaustion, and the deleterious effects of Mercury.*

To the Editor of the Lancet.

Sir:—Allow me to enter, on the pages of the leading Journal of medical science, my earnest protest against the daily and destructive practice of treating the effects of nervous exhaustion and general torpor of the system, as dependent on disease of the liver, and as requiring, in consequence, the administration of mercury. From the conviction resulting from experience, I can positively affirm that the sufferings of most of those persons who are said to be affected with disease of the liver are produced by mercury; that, by the frequent use of mercury, those sufferings are protracted for years, though still said to arise from an imaginary hepatic disease, enduring for ten or even twenty years; and,

finally, that by the frequent and long-continued administration of mercury all hope and chance of a recovery, which time alone would often effect, are utterly extinguished. Some practitioners are in the habit of treating all obscure disease as disease of the liver; a pain in the right side or shoulder (often rheumatic, or traceable to tenderness in the spine, especially in hysterical women,) they consider as perfectly diagnostic; with them the heroic, the omnipotent specific is mercury,—the only salvation, salivation. With this introductory protest, I beg leave to offer a few practical observations on the ætiology and rational treatment of nervous exhaustion.

Anxiety, affliction, dissipation, fatigue, exhaust the nervous power: a foul atmosphere, especially when contaminated by the effluvia from drains and rivers, exerts the same exhausting influence: it is often easy to discern, from the general aspect of the inhabitants, that the habitation they dwell in is infected by the effluvia from putrifying animal matter. The countenance of the sufferer from nervous exhaustion indicates langour, melancholy, dependency; the eyebrows become distorted from their harmonious level, and give to the countenance a peculiar expression of wretchedness; in healthy youth the eyebrows are traced upon the same horizontal line; they express serenity; in healthy age the left eyebrow is generally depressed, and denotes reflection and placid meditation; but whether in youth or age a depression of the eyebrow indicates anxiety and distress, nor, indeed, can the eyebrow be thus voluntarily drawn down without exciting a corresponding feeling of uneasiness.

From exhaustion of nervous power, the liver necessarily becomes torpid; it participates in the general torpor of the system, which may present no prominent symptom; but the symptoms of a torpid liver are so remarkable as often to attract the whole and sole attention of the practitioner: the slow or feeble pulse, the inactive state of the digestive organs, the deficient secretion of bile, all tend to confirm the favorite and general notion, that there is a disease of the liver; the specific and reputed remedy is prescribed as a matter of course: the employment of mercury is apparently justified by its immediate effects; the stimulus it affords to the system generally, and the liver in particular, removes, for a time, the more obvious symptoms of disease; but again and again those symptoms recur, and at each recurrence mark the increasing debility of the patient; the liver at last will scarcely act, excepting when under the unnatural influence of mercury; but the stimulus which excites the liver exhausts the brain and nervous system; mercury is, therefore, a dangerous and deceiving poison to those who are already fainting and sinking beneath the pressure of accumulating evils; for a time it confers relief, but eventually becomes the cause of much of the misery that embitters the existence of the nervous invalid; misery compounded of gloomy thoughts, abject fears, the dread of madness, the weariness of life, that tempts him to die the death of the suicide, in hope of rest. The sufferer from nervous exhaustion will often detect the administration of the smallest dose of mercury by the almost insupportable langour it produces; a mercurial dressing applied to an ulcer will cause, in many, neuralgic affections: the deep and frequent

sigh, and the tottering pace of a drunken man, evince the effects of large and frequent quantities. The eagerness of the public to embrace new systems, the extraordinary appetite for universal pills, is to be accounted for by a growing antipathy to mercurialists and phlebotomists, and by a natural disinclination to protracted illness; the homœapathic system possesses the negative merit of doing no harm.

Nervous exhaustion is associated with a peculiar condition of the system. I may here remark, that the particular conditions of the body which engender or modify various diseases are little regarded by medical men; there is, for instance, a rheumatic condition, the existence of which is manifested by the tongue, and which, if early attended to, may be easily corrected by dietetic measures, by medicines which act as chemical correctives, and by withholding the elements of rheumatic disease, abundantly contained in animal food and fermented liquors; this rheumatic condition being neglected, leads to violent and destructive inflammation of organs; the organ attacked will be the one which is congenitally the weakest, or which has become so by long-continued excitement. The young practitioner will soon learn to dread the rheumatic fever that attacks an individual who has long struggled with difficulties; the brain will certainly be involved. A vast number of diseases may be termed rheumatic as arising from, or influenced by, a rheumatic condition of the body; there are rheumatic bronchitis, rheumatic diarrhœa, rheumatic inflammation, following injuries or surgical operations, &c. &c. The condition of the body, with which nervous exhaustion is associated, is essentially anemic. I shall venture to term such a condition a leucotic condition, or leucosis, closely resembling, if not identical with, chlorosis; it is a condition common to men and women, to infancy and age. A leucotic condition of the system is distinguishable by many external and visible signs, but especially by the appearances of the tongue: the tongue is pale, like a piece of raw veal, often coated, moist, deeply marked with impressions from the teeth, flaccid, often tremulous, almost bloodless, a muscular structure without power; it is a type of the system generally; the whole system is bloodless; the muscular system powerless; the countenance pale, as from the effects of lead; the lips blanched; the feet are continually cold; the urine pale, sometimes turbid, not often red, when red, only for a short period; of course, there are different degrees of the affection, sometimes it requires a practised eye to discern the earliest degree, as shown by the pallescent and slightly-swollen tongue. The leucotic condition, it is important to remember, is especially to be recognised by the appearances of the tongue; the body may be pale and emaciated, yet the tongue and lips be red; in such a case there is nervous irritability,—not nervous exhaustion,—the treatment must be widely different.

When there exists a leucotic condition of the system, the liver is generally inactive; there may be congestion of the liver from deficient nervous impulse to secretion; but this inactive and congestive state of the liver is sympathetic, and of secondary importance; it will generally disappear as the constitution acquires power; sometimes, when milder means prove unavailing, a dose of mercury may be required to excite an immediate disposition to healthful action, but by a frequent repeti-

tion of the dose the power to act is gradually lessened, and, at last, destroyed.

Persons of leucotic habit are very numerous in populous cities; they are affected like the rest of mankind with diseases of specific character, but the specific treatment often aggravates the pre-existing condition of the system, and proves fatal to the patient. No error is more fatal to them than the prevalent one of assigning fearful names to trivial symptoms; if the name be fearful, still more fearful is the treatment; to them the term inflammation, from the treatment it is supposed to necessitate, is far more destructive than inflammation itself; an unfavorable prognosis is sometimes confirmed, not so much by the natural termination of a disease as by the result of the treatment.

A leucotic condition predisposes to the attacks of debilitating epidemics; it is observable in the stout and bulky, as well as in the thin and slender; it often leads to enlargement of the heart from flaccidity of the parietes, to various ramollissement, to dropsical effusions, to enlargement of the spleen in infants; when the last-mentioned disease is detected in an infant, it will generally be found that the leucotic condition is evident either in the father or the mother, or in both.

The leucotic subject often suffers from distressing headaches, especially of the upper or hinder part of the head, from deafness, from deficient sensibility, from bronchitis, especially in infancy and age, from pain in the precordial region, and palpitation of the heart; these diseases are often rendered tedious or fatal by cupping and bleeding, by purgatives and expectorants.

Treatment of Nervous Exhaustion.

Patience and perseverance must characterise the judicious treatment of nervous exhaustion; no remarkable benefit can be suddenly effected; the very attempt is productive of injury; the patient must be treated, not by partial, but by general measures, and of these the moral are as important as the physical or medicinal. Tranquilize the mind, still the troubled heart, engage the attention and interest of the patient by amusement however trivial; if the mind be refreshed, the impulse to improvement is already gained. Excitement is destruction; the excitement of irrepressible anxiety and anguish has but one antidote, the oblivion of death; poverty soon consigns the sensitive victim from the poor-house surgeon to the tomb. Dietetic excitement is pernicious, whether produced by too highly anamalized food, or by fermented liquors; the strengthening system, as it is commonly denominated, consisting in the administration of indigestible quantities of animal food, eggs, jellies, bread and milk, and large quantities of beer, wine, or spirits, only excites and irritates; debility and inability are often combined, and claim an equal regard; the inclination of the patient may safely direct the choice of food; when the tongue is pale and flabby, the patient is generally fond of salt and of red meats, and may be allowed to partake freely of both; salt is corrective of the morbid condition. One of the best cordials not included in the Pharmacopœia is Guinness's bottled stout, in limited quantity. When the tongue is coated and appetite defective, when the mercurialist would prescribe his favorite anti-bilious pills, then a farinaceous diet is most beneficial, and is generally man-

ageable to the patient; food should be taken, or abstained from, as the tongue is clean or foul; a clean tongue denotes complete digestion, as a clear fire denotes perfect combustion. When there is instinctive loathing of solid meat there is no wisdom, though often much self-congratulation in deluding the palate with beef-tea, milk, &c. To the success of the measures adopted, gentle exercise in the open air, and on a level surface, is indispensable; irregular and distressing exercise, such as running up and down stairs, shaking beds, &c., though often recommended, is worse than useless. Regulated exercise should be attended with perfect rest, with rest in the recumbent position; the spinal column should be placed in the position of absolute rest, the horizontal position; it is difficult to acquire strength, it is easy to reserve it; much of the sufferings of nervous invalids would be avoided, if the recumbent position, as in former ages, were more fashionable than the sedentary. The feet of the patient *must* be kept warm, an imperative injunction, which must be fulfilled, however great the difficulty.

The medicinal treatment must be chiefly regulated by the appearances of the tongue: when the tongue is coated with a yellow, greenish, or cream-like substance, the edges being pale as usual, then gentle aperients should be regularly given, such as aloes, colocynth, or senna tea, all of which, like mercury, exert a peculiar influence on the liver, without its evil consequences; irritability is best allayed by minute doses of tartar emetic, which do not debilitate, given at bedtime. Sometimes a very small quantity of opium is serviceable; an excellent draught is formed by a combination of small doses of opium, hydrocyanic acid and tartar emetic, (it will be found the more excellent, when there is nervous irritability, with a dry and red tongue); opium is generally a very dangerous medicine in cases of nervous exhaustion, increasing the general torpor. Epsom salts, if given at all, should only be given in small quantity, they then produce a tonic effect; in large quantities, they are remarkably debilitating; when the tongue is pale and moist, the extract of aloes will seldom occasion hæmorrhoids; when the tongue is red, especially if red and dry, it rarely fails to produce them; salts, and, indeed, all drastic purgatives, have the same effect; this assertion may easily be verified by experiment.

When the condition of the system is evidently leucotic, when the tongue is pale and flabby, and almost bloodless, like a piece of raw veal, taking an impression from the teeth, then the imperial remedy, the real specific, is iron—iron in any form, not, however, given by handfuls, which disgust and dispirit. Dr. Sigmond, in his interesting and instructive lectures, has stated that iron is not to be given in cases of phthisis; but when phthisis attends a leucotic or chlorotic subject, there is no medicine which so long postpones the fatal termination; the tongue in phthisis is generally the antithesis to the one described; it is morbidly, intensely red; then, indeed, iron is pernicious, and so is the treatment generally followed of supporting the patient's strength by wine and indigestible quantities of stimulating food; the distress, and fever, and cough, are all aggravated, and the progress of the disease accelerated by irritation. The flabby and indented tongue has been considered as particularly indicative of disease of the liver; it is the

tongue that should especially preclude the employment of mercury; iron may be given with advantage where the tongue is pale and moist, even though it be coated; gentle aperients may be administered at the same time. Mercury should never be administered when the tongue is clean, and is only cautiously and occasionally to be given when a yellow, greyish, or greenish coating pertinaciously adheres to it, despite all previous efforts to remove it.

Mercury acts most beneficially in all cases where the tongue is covered with a greyish or yellowish coating, which appears to have dyed the tongue, and to be incorporated with it, and when the tip and edges of that organ are red or purple, and parched (such is the ordinary tongue of the drunkard and of the patient suffering from acute bilious fever), the hydrag. c. creta is generally the best form; mercury is productive of minor injury when the tongue is clean, dry, and red; when there is nervous irritability,—not nervous exhaustion,—it will rather irritate than depress; oppression of strength is often mistaken for real debility; the tongue affords the means of distinction.

Mercury is oftentimes an invaluable, an indispensable, remedy, but should never be unnecessarily prescribed: mercury and bleeding are both powerful agents, but he is the most scientific practitioner who, with safety to the patient, can most frequently dispense with either.

Much more might be usefully written, much more *will* be hereafter written, by abler men, on the conditions of the body as influencing disease, on the nature of morbid action, and on the elements of disease; primary causes will be as eagerly investigated as ultimate effects. I remain, sir, your obedient servant, HENRY REES.

45, Finsbury-square, Dec. 18th, 1837.—*Lancet.*

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4. *Clinical Lecture.* By W. LAWRENCE, F. R. S.

Encysted Tumors of the Eyelids, containing Hair.—A few days ago I removed a small tumor, in the case of a young child, from the neighborhood of the external canthus. It was about the size of a horse-bean, forming a colourless elevation, with the integuments covering it loosely, so that they could be pinched up into a fold over the swelling, which was more fixed below. It was placed immediately behind, and a little above the junction of the lids; and was said, by the mother, to have been there from the time of birth. She stated that it was increasing, and for this reason she wished that it should be removed.

In performing the operation, it was found that the tumor, which from external examination might have been supposed to be simply subcutaneous, was covered also by the orbicularis palpebrarum, and that it adhered closely to the external angular process of the frontal bone.—It consisted of a thin but compact cyst, with a whitish glistening surface, and it contained a fatty matter, resembling soft suet, with an intermixture of short darkish hairs, principally in small bundles on the surface of the fat.

Such tumors are not unfrequent in infants and young children, occupying the situation just described. I believe them to be congenital; at least the statement of the mother generally leads to this inference.—Sometimes they are stationary: in that case, if the swelling is small,

there is no necessity for operation, as it is perfectly indolent. I am acquainted with a gentleman who has had through life a rather larger growth of this kind; it causes an unnatural fulness near the extreme angle of the eye, not amounting to deformity, and has never been attended with the slightest uneasiness. The affection, as in the case just described, is a cyst containing fat, which is sometimes of oily consistence, sometimes firmer. I have always found short hairs mixed with it in various proportions. Is this admixture of hairs, which resemble those of the eyebrow in length, to be regarded as an exemplification of the principle so frequently observed in adventitious structures, viz: that they resemble in nature that of the textures in which they grow, or that of parts in their immediate vicinity? It is placed under the arbicularis, and adheres more or less firmly to the bone. You must bear in mind the two latter circumstances in operating; make a larger incision than the size of the swelling would seem to require; and pay especial attention to the complete removal of the cyst from the bone.

If a portion of the cyst is left, the wound will not close, and such an occurrence is very annoying to the patient, and considered discreditable to the operator. I saw a young lady, in whom such a tumor as those I have described had been removed from the root of the nose, at the interval between the eyebrows. She was a handsome person, and had submitted to the operation for the removal of what she deemed a blemish, though it must have been very slight, as the tumor was inconsiderable. She was much worse after the operation than before; for the wound did not heal, at least it sometimes scabbed over, and sometimes discharged. A probe introduced into the opening went down apparently to the bone. Having learnt the nature of the swelling, and that the operator had experienced unexpected difficulty in separating it from the bone, I concluded that a bit of the cyst had been left behind, and proposed an incision to ascertain that point, which was readily consented to. I found, closely adhering to the frontal bone, a small strip of the cyst, conspicuous by its white glistening surface, and having a few short hairs on it: this was easily removed, and a firm cicatrix was soon secured.

I once saw a small growth of similar nature, but with an external aperture large enough to admit an ordinary dressing probe, on the bridge of the nose. It was congenital; and the opening sometimes produced a kind of greasy discharge. A probe passed in about a third of an inch. Various applications had been made to the part ineffectually. I slit it open and, found a smooth shining membrane with small hairs upon it, almost imbedded in the ossa nasi. It was difficult to dissect it out completely; but the removal was accomplished, and the part healed soundly.

Penetrating Wound of the Sclerotica, with Prolapsus of the Iris.

A child, about five years old, was brought to the hospital, as an outpatient, a week ago, having received a severe blow on the right eye with a stick. The sclerotica was ruptured near the margin of the cornea, the wound being about one-eight of an inch in length. The corresponding portion of the iris had disappeared, so that the pupil, oppo-

site to the wound in the sclerotica, was continued to the circumference of the cornea. The conjunctiva was slightly elevated, as if by protrusion of the missing part of the iris. The accident had occurred three or four days previously, and nothing had been done for it. There was no inflammation or pain of the eye: the pupil was clear, the iris natural, except in the points already mentioned, and vision seemed unaffected. The case required nothing further than care, with a little medicine and cold lotion. We saw the child since, the eye remaining in the state already described, and ascertained clearly that vision was unimpared.

Penetrating wounds of the globe seldom terminate so favorably as in this case. They generally produce, more especially if they should be lacerated, as in this patient, serious inflammation, which involves the internal tunics, and is thus likely to destroy or injure sight. To prevent or to lessen this kind of mischief, active antiphlogistic means should be resorted to immediately after the accident, or as soon as the slightest indications of inflammation are observed. Again, a blow on the eye, without producing any wound or visible injury, may impair or destroy sight, by causing concussion of the retina. I use the word concussion here, as in injuries of the head, to denote a specics of injury not produced by violence directly applied to the part, and of which indeed we do not know the exact nature, although it is capable of producing the most serious effects. I lately saw a young gentleman in whom complete amaurosis had ensued from a blow in the eye, not followed by any visible injury.

When the sclerotica is wounded, there is commonly an excessive partial dilatation of the pupil opposite to the injury, which may proceed, as in this case, to actual disappearance of the pupillary margin. This must be ascribed to injury of the corresponding ciliary nerves. Such wounds are frequently attended with effusion of blood into the anterior chamber, behind the iris, or in both situations. This indicates that the violence has been serious; and wound or rupture of the sclerotica, combined with such effusions, generally terminates in loss of vision, either by concussion of the retina, or by inflammation of the internal tunics coming on slowly after the accident, and terminating in atrophy of the globe.

I remember, however, another case of complete recovery, after a penetrating wound of the sclerotica, which I mention to you, because such favorable results, although rare, may prevent us from pronouncing too alarming a prognosis. A boy at school, ten years old, received a blow on the eye, near the external angle, from an arrow, with a pointed nail fixed to its end: it was thrown towards him, and did not strike the globe with great force. He was immediately brought to me in a chaise, from a distance of fifteen miles, where the accident had happened. The master, who accompanied him, informed me that he examined the eye immediately after the accident, that he found the pupil greatly dilated, and that the boy could not see. There was a wound of the sclerotica, a short distance behind the cornea, shaped like a leech-bite, but larger: the pupil was round, clear, and larger than that of the opposite eye. I was pleased to find that the patient could see, though

imperfectly; and I was unwilling at that moment to make the trials necessary for ascertaining the exact amount of vision. I directed leeches, cold cloths to the eye, aperient medicines, low diet, and rest in bed, strong light being excluded from the room. I saw the patient again in ten days, when the eye was, as it had been in the interval, free from all inflammatory redness; the iris, the pupil, and the motions of the former, were perfectly natural, and vision was unimpaired. The recovery in this case was permanent; the injury of the sclerotica being still visible. Wounds of this structure do not unite, as we see in the punctures made in couching.

Iritis combined with Scaly Syphilitic Eruption.

I have seen iritis occurring in conjunction with various forms of syphilitic eruption. If asked with which of these it is most frequently conjoined, I should have said the scaly; although Mr. Carmichael, whose experience has been so extensive, has represented it as almost confined to what he denominates the popular form of venereal disease. I mentioned to you in a former lecture, a case of acute syphilitic iritis, with scaly eruption, and ulceration of the fauces. There was general discoloration of the iris, with a mass of lymph effused near the pupillary margin; contraction and irregularity of the pupil, with vision so much impaired, that the patient could not distinguish even capital letters. The treatment consisted, as I then mentioned to you, in abstraction of blood, by cupping on the temple, to sixteen ounces, and the administration, every six hours, of two grains of calomel, with one-third of a grain of opium. Subsequently, the moistened extract of belladonna has been applied on the brow daily. The mercury has acted considerably on the system, producing ptyalism: and the influence on the ophthalmic affection, and the other symptoms, has been proportionably decisive and rapid. In seven days, the effused lymph is nearly absorbed, the iris has regained its natural color, the external redness has nearly disappeared, and the patient can read small print; the adhesions of the iris have not given way, and the organ has not perfectly recovered, although the mercury has been discontinued, and will, probably, not be resumed. The eruption has faded, and the throat is recovered. The antivenereal powers of mercury seem to me to be shown most unequivocally in ulcerations of the throat and mouth; for although the remedy produces, as it did in this case, inflammation and ulceration of the gums, it cures the syphilitic ulceration of the contiguous membrane, thus appearing in the double light of bane and antidote, in reference to two parts of one continuous membranous surface.

W. Pratt was admitted May 25, with gonorrhœa, scaly eruption, superficial ulcerations of the fauces, and pains in the limbs. On account of the latter, which were severe, hydriodate of potash, in the dose of five grains, three times daily, was administered in the compound decoction of sarsaparilla. It acted with its usual good effects; and the patient felt himself so much relieved, that he left the hospital, by his own desire, on June 14. He returned on the 21st, with acute iritis of the right eye. There was a zone of pink redness in the sclerotica round the cornea; the iris was discolored, dull, and dark throughout; the pupillary margin, and the lesser circle, being covered by a fur of dull

brownish red lymph. The pupil was irregular, vision greatly impaired, and there was great pain in the frontal region, particularly during the night, completely preventing rest. Twenty ounces of blood were taken from the temples by cupping: two grains of calomel, and one-third grain of opium, were given every six hours. On the 23d, twelve leeches were applied round the eye: and now (June 26) recovery is proceeding rapidly, under a decided, but not excessive, mercurial influence.

In —— Richardson, we have another example of iritis with scaly eruption. There was general discoloration of the iris, without any effusion of lymph in distinct masses—condylomata, as some of the German writers have called them. Although these effusions are seldom seen in the adult, except in syphilitic iritis, they do not always take place; perhaps they are not met with in the majority of cases. The pain in the frontal region was very severe, particularly at night, and we employed for its relief frictions of mercurial ointment and opium on the part, six grains of the former, with two of the latter, which seldom fail to relieve this particular symptom. The treatment was the same, in other respects, as in the two preceding cases; and this patient is recovering favorably.

Thus you see that we have in the hospital at the same time three cases of syphilitic iritis accompanying the scaly form of eruption.

Strumous Ophthalmia.

Mr. Lawrence next adverted to two cases of this complaint, which had been some time in the hospital, and were now completely recovered, under a mode of treatment which he generally finds successful. The most striking symptom of the complaint, intolerance of light, existed in both to its greatest extent; indeed, it might rather be called total inability to bear the light in any shape; for these children lay in bed under the clothes, either with the face resting on the bed, or the hands pressed on the eyes. The face was red and excoriated from the pressure and from the scalding tears, while the physiognomy had the peculiar expression produced by the spasmodic closure of the eyelids, and the combined contraction of all the surrounding muscles, for the purpose of shutting out the light. To get a clear view of the globe was impracticable; but the eyes, as far as they could be examined, presented very little appearance of disorder. In these strumous subjects the occurrence of disease in a new part relieves that which was previously suffering. In imitation of this natural process, the tartar emetic ointment was rubbed on the nape in both patients, so as to produce and maintain a considerable irritation; the sulphate of quinine was administered internally; the bowels were regulated by small doses of rhubarb; animal diet was allowed, when the appetite indicated the necessity for it; and the suffering organs were occasionally fomented with tepid water. Under this treatment, both cases have recovered: the children can now open their eyes, and bear the light as well as any body, and we find that no unfavorable change has occured in the affected parts. The patients are at the same time improved in general health. In one of them, the pustular eruption caused by the ointment spread over the body, with considerable, but temporary constitutional disturbance.—*Ibid.*

5. *On Inhalation in Tubercular Phthisis Pulmonalis.*

To the Editor of the Medical Gazette.

SIR:—The favour of your insertion of the following further observations, on the subject of inhalation in Tubercular Phthisis Pulmonalis, will oblige, sir,

Your obedient servant,

CHARLES SCUDAMORE.

Wimpole Street, Feb. 10, 1838.

Three years have elapsed since my last communication in the Medical Gazette, of the successful treatment of some cases of phthisis pulmonalis, in which the inhalation of iodine and conium formed a material remedy. I hope, therefore, that a concise summary account of my further experience in this lamentable disease, and in chronic bronchitis, may prove an acceptable offering to the profession. That it has been my fate to meet with a much larger portion of failure than success, in phthisis, cannot fairly be made the reproach of my plan of treatment; for it has happened to me, for the most part, that I have not been consulted till the advanced stage of the disease, when the lungs having become extensively disorganised by the spread of tubercles almost universal, by cavities the consequence of the softening process, and often with the complication of ulcers in the intestinal canal, my task could only be that of studying to alleviate symptoms, and to soothe, by tender care, the last weeks or days of life.

It not unfrequently happens with consumption to be overlooked in the early stage of the disease, when probably attentive appropriate measures might be attended with happy results. The danger is serious, however delayed the consummation of the event, when tubercles have began to infest the lungs. But from the fear and anxiety of friends inducing a flattering rather than a true view of the case, with a reluctance to listen to any voice that gives a warning of danger; and from the tenderness probably more than the better judgement of the medical adviser, which makes him join in the delusion, it follows, unhappily, that the early indications of dangerous disease are not detected or sufficiently regarded, and the most valuable period for giving assistance is lost; perhaps irrevocably. I have known very many instances exactly exemplifying this statement. The consoling opinion has been pronounced, "that at present the lungs appear to be safe," or that, notwithstanding the evident delicacy of constitution, and necessity for care, yet "that there is no reason to consider the lungs at all affected;" while at this very time tubercles do exist, and consequently danger is established.

It will be said, that in the commencement of tubercular phthisis, there is much obscurity in the symptoms, and that we cannot discover by auscultation whether or not tubercles exist, as they may be so minute and disseminated, or so very partially clustered, as not materially to interfere with the vesicular respiration. I freely admit the insufficiency of the stethoscope to detect the early state of the tubercular disease, on many occasions at least; but there are several circumstances largely instructive.

If the patient have lost strength and flesh, without apparent cause; have recently become short-breathed on slight exertion, especially on making the least ascent; have more or less of short dry cough, a quickness of pulse, night-restlessness, and perhaps some dulness on percussion, here and there, in the upper parts of the chest, we have surely great reason to fear that there are tubercles formed. If other members of the family have died from consumption, the suspicion is painfully increased.

This is the most important period for the adoption of a systematic plan of treatment, and the one at which I should have the most confidence in the efficacy of the inhalation of iodine and conium. But a suitable treatment embraces many other points of management.

I believe I may state with truth, that when the symptoms become so conspicuous as to receive medical notice, the most general principle of practice has been to seek, as the *summum bonum*, a retardation of the pulse, and that by means of sedative medicines, the use of digitalis especially, with a slender, light, and cooling diet. Sometimes this is restrained to farinaceous food, milk, vegetables, and fruits. I apprehend that only in the very acute cases of consumption, which occasionally happen to young persons, is such a mode of treatment at all proper. When it is not forbidden, as in such cases, by the high degree of hectic fever so prevailing as to be almost continued, it appears to me of great importance to sustain the powers of the constitution by a very generous and supporting diet, with some porter; and with or without the addition of diluted wine, instead of aqueous beverage.—I also make choice of tonic alterative medicines rather than those of a debilitating nature; soothe the nervous system at night by anodynes and sedatives, and employ such mode of external counter-irritation as may be best suited to the individual case, for this must be varied. Some patients are so much lowered and distressed by blisters, that they become inadmissible. I find the oil of croton liniment often to be very useful, and much less inconvenient in its effects than the tartar emetic ointment. I attach importance to the daily ablution of the chest with a mixture of purified acetic acid, Eau de Cologne and water, substituting for water an infusion of tannin, when perspirations are excessive. All the general means of Hygeia are of course to be pursued. Lastly, and what, in my mind, is a most important link in the chain, I make use of the inhalation of iodine with conium, according to the formula stated in the second edition of my work,* and in the Medical Gazette, vol. viii. p. 157. And here I will take occasion to make some further remarks on the use of this remedy.

It is of the utmost importance that all the medicines used for inhalation should be quite pure, and that the tinctures should be saturated with their ingredients. If the iodine be in the dry state it requires an equal portion of iodide of potassium, that it may remain in permanent solution in the mixture; *for* "three" grains of this salt, expressed in my formula, *read* "five:" and according to the strength of the solution, so the proportions used are to be smaller. It is better always to add

* "Cases illustrating and confirming the remedial power of the Inhalation of Iodine and Conium in Tubercular Phthisis, and various disordered states of the lungs and air-passages."

the conium at the time of using the inhaling. At the temperature of 90 deg. the volatile properties of the iodine are given off very sensibly; but the conium requires more heat, and that of 120 deg. is not too much for the iodine. This degree, therefore, I most recommend; or if the patient have not a thermometer, let the instruction be, to put the water into the inhaler (first warming it a little to prepare it) quite as hot as the finger can bear without pain. The inhaler should be kept immersed in rather hotter water during the process. A good glass inhaler also is a material consideration. If it be small, and the tubes too contracted in the bore, the difficulty of inhaling would be great to the invalid, whose respiration is easily embarrassed; whereas, with a fit apparatus,* the process is perfectly easy, and not fatiguing.

It would be inconsistent with my present purpose to enter at length into the *ratio medendi;* for which and other particulars I beg leave to refer the reader to my publication.

The Case V., detailed in my second edition, very clearly demonstrates the useful power of the inhaling treatment. This gentleman was labouring under the well marked symptoms of pulmonary tubercles, much increased beyond the usual degree in which he had been for some time affected, and so as to excite immediate alarm for his safety. He recovered in so satisfactory a manner under my care, that he was enabled to pass the two following years at his seat in Scotland, and to enjoy the pleasures of his gun and hunting. He wrote me the most cheerful accounts, and described himself as perfectly well. I received a similar statement from his friends. He was of the most active disposition, too convivial, and passionately fond of field sports. At the end of the second year he became quite careless of his safety, often exposing himself to the most unfavourable weather, and frequently committing great excess at the table in wine and mixed spirits.—Thus he renewed in the most active manner the disease which had been so satisfactorily controlled. I learnt that in a short time hæmoptysis occurred, attended with urgent cough; this was followed by a severe attack of influenza; and when, at a late period, I saw him in London, his situation was hopeless. A large excavation had formed in the upper part of the right lung, and a smaller one in the left. He was much emaciated, but he combated with his disease for a considerable time, till at last the strength of his constitution yielded.

I allude to this case for the purpose of shewing, as it appears to me, the beneficial influence of the inhalation in the first instance, on the tubercular disease. Had the patient led a life of proper care; it is reasonable to suppose that the recovery which he had obtained might have been lasting.

I wish now to refer to some of my other published cases; and first to those which will be found in the number for February, of the fifteenth volume of the Gazette.

J. A. Case I. He had remained comfortably well from November 1834, till the period of influenza,† in the beginning of 1837. He

* The best inhalers which I have seen are to be procured at Garden's, chemist, 372, Oxford street; and Perkin's chemist, 147, Oxford street.

†How severely did this epidemic test the vital power of all delicate constitutions, and more especially all those affected with pulmonary disease, or predisposed to phthisis pulmonalis.

was violently attacked with the worst symptoms of the epidemic, and fell a victim in a short time.

Case II.—This gentleman continues to enjoy very excellent health, has married, and established himself in life.

The subject of Case III. has been free from all returns of disease.

Case IV.—This gentleman has acquired so settled a state of health, that within the last few months he has married.

Case V.—This young woman informs me that since the period of my last report, she has very seldom had occasion to resort to the inhalation; but that when she has done so, she has never been disappointed in its good effects.

Of much the larger part of the cases related in my second edition, I could make an equally favourable report. I shall advert only to some of the most important examples.

Case I. (2d series.)—This lady has continued in the enjoyment of very comfortable health, possessing good strength and spirits up to the present time, with the exception of having suffered from influenza on each occasion of the epidemic occurring. It is most satisfactory to consider that her remarkable recovery was so perfect as to admit of such a trial of its stability.

Case VIII.—I have received the most agreeable accounts of the continued health of this gentleman.

Case IX.—This young woman has continued to enjoy comfortable health.

I will now offer an outline of a small part of my more recent experience in consumptive cases:—

A lady, aged 22, mother of three children, consulted me in April 1835. She had been falling off in health for a year past. Her youngest child was fifteen months old, and she had nursed it for twelve, but with difficulty. She related that she had within the last few months lost flesh and strength very rapidly; that on six or seven occasions she had coughed up small quantities of pure blood, but latterly it had only appeared occasionally, streaking the expectoration.

At my visit I found her suffering from harrassing cough, with the inspiration easily hurried by slight exertion, and a distressing sense of restraint over the chest. She had daily hectic fever, and severe night perspirations; the pulse upwards of 100; the animal heat 100 deg.; the appetite was lost, and the spirits much depressed. The sputum was considerable in quantity, puromuculent in appearance, offensive in odour, and slightly streaked with blood. The signs by auscultation were, much mucous râle on each side, but on the right especially, and there mixed with the sibilant. In this part also the voice was very resonant, and on percussion the sound was dull. I considered that there were tubercles, but that no softening had taken place.

It had been thought proper to keep her on very low diet; and it had been candidly stated to her friends, that as further trials with medicinal treatment could not in all probability render any benefit, it would be most expedient to try a change of air, and trust to that alone.

Without delay I prescribed the inhalation of iodine and conium; gave tonic and alterative medicines; used counter-irritation by means

of oil of croton diluted with spir. ammon. comp. over the most affected parts of the chest; and elsewhere it was washed daily with a lotion of infusion of tannin, purified acetic acid, and Eau de Cologne, slightly tepid.

She experienced very sensible relief from the inhalation, and in a short time was enabled to lie down in bed comfortably on either side, from which she had been long prevented, and the embarrassment of her breathing on exercise was most satisfactorily relieved; she could take a considerable walk without inconvenience.

This lady quite recovered her health at the end of four months, and has since continued well, a period of almost three years.

A gentleman, aged 25, tall and slight, of consumptive family, and had recently lost a brother from consumption, when under the influence of mercury, exposed himself to wet and cold, and in consequence was attacked by acute rheumatism. Having, after a long period, regained his health, he joined in the sports of the field; and one day, when much heated and in a perspiration, forded a river, and kept on his wet clothes for some hours. Catarrhal fever and cough quickly ensued, and in a short time, his state, as described to me, was that of a person labouring under the first symptoms of consumption. He took an early opportunity of visiting Torquay, and resided there some months, but made no progress towards health, although he had diligently followed the advice of his medical friends. One acquaintance had recommended him to consult me; but another, and he was medical, disuaded him, assuring him that inhaling iodine would do him serious mischief. He passed through London on his way to the continent, Rome being his destination; and consulted a physician, who, with other means, prescribed the inhaling of creosote, which he tried steadily. It did not disagree, but proved of no benefit. He was exposed to many inconveniences in travelling, and at one place was detained in quarantine on account of cholera. His disease increased so much before and after his arrival at Rome, that his state became truly alarming; and his debility and emaciation had reached a fearful height. It occurred to him that, having possession of my book, he might adopt the treatment recommended in it, under the guidance of an English Physician whom he selected.* He went afterwards to Naples, and followed up the treatment there. The terms of approbation in which he expressed himself, when he described the extraordinary benefit which he derived from the inhaling of the iodine with conium, were enthusiastic; and he declared himself to have amended from the first moment. In the account which he gave me of his case at that time, when at Rome, he stated that he had daily two paroxysms of hectic fever; suffered most severely from cough, attended with an offensive expectoration, which was frequently coloured; shortness of breath; loss of sleep at night; copious perspirations, and other bad symptoms. The hectic fever was immediately controlled by the inhalation, and the respiration remarkably relieved.

* This was Dr. Thompson, whom I have just now had the pleasure of seeing. He informs me that when he first saw this gentleman, he was evidently labouring under tubercular phthisis, and having a cavity in the upper part of the right lung. After some interval he consented to the use of inhalation, although with some reluctance. Recourse was soon had to the mixture of iodine with conium; and Dr. Thompson confesses himself quite satisfied with the benefit which the patient received from the inhaling.

I found him still an invalid, but, according to his report, surprisingly increased in flesh and strength; and he was in good spirits. His weight, he said, was within seven pounds of what it had been formerly in his best health. By auscultation and percussion I discovered evident signs of obstruction at the upper part of the right lung, and slighter in the same situation of the left. There was no indication of cavity, but the mucous membrane of the bronchial tubes was not in a healthy state, and there was still cough. The pulse was moderate, and the animal heat 97 deg.

I recommended that the inhalation should be resumed; internally sarsaparilla, with small doses of the iodide of potassium; and externally, the daily use of ablution with the lotion of which I have before spoken, together with friction; that he should live well regulating his diet, and lead a life of care.

The following statement of a young lady, who was evidently suffering from the early symptoms of tubercular irritation, and whose sister died from consumption, is, I think, sufficiently interesting to be related. I will give it in her own natural language:—

"At a period when I was suffering from one of my usual attacks of painful constriction of the chest, accompanied by general depression of spirits, and sometimes with shivering, followed by heat, shortness of breathing, and a troublesome cough, I was recommended by Sir C. Scudamore to make trial of his iodine and hemlock inhalation; and I cannot too strongly express my gratitude for the effects which it produced in relieving all my symptoms. After several times inhaling, the sense of soreness seemed healed, the pain removed, and I felt more expansion and strength of chest than I had experienced for a long period. To express more strongly my feeling from the inhaling, I should say, the effect was like the opening of valves that had long been closed."

Were space convenient, I should relate the cases of a gentleman, aged 54; of a young lady, aged 20; and of a medical practitioner, aged 30; in which the most unequivocal symptoms of tubercular disease were strongly developed; in which there was every threatening of danger; and in all of them I was happily quite successful.

I prefer, however, to substitute the case of Dr. Davidson, of Setham, near Forfare, subjoining the communication with which he has favored me of other cases, and requesting that his letter may be copied *verbatim:*—

Case of Dr. Davidson.—About the 1st of September (1836,) I was seized with catarrh, which continued with slight aggravation till the 1st of October, when I was affected with severe pain in the left mammary region, and all at once the sputa, which had usually been from one to two ounces in quantity in the twenty-four hours, assumed a puriform appearance. By general and topical bleeding the pain of my side was relieved, but soon returned in a slight degree, and was then removed by a blister; yet I felt uneasiness behind the sternum. I was confined to my bed, and my strength was much reduced. My pulse, which in health is 60, was then betwen 80 and 90.

He proceeded to state he was apprehensive of phthisis, and wished

my opinion as to the treatment of his case. In his second communication, in January 1837, he reported that he had inhaled the mixture of iodine with conium, and taken the medicines which I had prescribed, with much benefit; but that a severe attack of the epidemic influenza had reproduced his symptoms, and compelled him to suspend the treatment for a short time. In his third letter, Jan. 22, 1838, he relates, that after an interval of three weeks from the time of being attacked with the influenza, he had returned to my method of treatment, of which he thus speaks:—"I resumed the inhalation, and with the same happy effect as formerly, for in the course of about three weeks the purulent expectoration gradually subsided, along with the cough and pains of the chest, and by the first of April I was so much improved in health and strength, that I was able again to fulfil my active professional duties. It is proper to mention that, while using the inhalation, I took at bed-time a small dose of the solution of acetate of morphia, and once or twice in the day a few drops of acid. hydrocyan, in an effervescing draught. Over the site of pain in the left mammary region, I kept up counter-irritation from time to time, by emplast. cantharid., or by ung. antimon. tartarizat. I regulated the bowels by a powder composed of pulv. rhei. carbon. sodæ, p. zingib. et sulph. ferri.

My much lamented friend, the late Dr. Mackintosh, of Edinburgh, as well as others, assured me that the left lobes of my lungs were rather emphysematous, which renders me somewhat more liable to catch cold; but with that one exception, thanks to Divine Providence and your kind assistance, I am now in as good health as I have been for many years past. With two exceptions, I have not even had a catarrh during the present winter. These attacks were slight and of slight duration, although I have been daily and nightly exposed, in the discharge of my professional duties. Having given you these particulars of my own case, I will now offer you the relation of a few other cases, in which I have given the inhalation of iodine and conium a fair trial.

January 7, 1837, I was requested to visit Mr. G——, aged 66, parish school master, of Kirkden. My assistant stated that he complained much of tightness across the chest, pain in the left mammary region, severe cough, with muco-purulent expectoration; bowels costive; tongue dirty towards the root; fauces red and tender; pulse 100, and the body weak and much emaciated. My assistant attended the patient, and treated his case with much skill, till the 3d of March, when I visited him myself, and found that from the usual remedies which had been tried, he had derived no benefit whatever. Upon auscultating the chest, I found the vesicular murmur faint on the left side, and marked by bronchial respiration, or mucous râle. The muco-purulent expectoration had greatly increased since he came under our care, and his body was reduced to a perfect skeleton. I recommended the inhalation of iodine and conium, and gave him your work to read. He commenced on the 6th, and inhaled the medicated vapour three times a day till the 1st of May, when he had recovered so much that I made him reduce it to twice; and by the 15th of the said month he gave it up, and resumed

his teaching by the 25th, and has continued in full enjoyment of good health ever since. It is proper to state, that with the exception of one small blister, and occasionally a gentle dose of some opening medicine, he used no medicine whatever after he commenced the inhalation.

Mrs. F——, a woman of very delicate constitution, æt. 40, had been complaining from the 9th December 1836. As Dr. M'Donald, my assistant, attended her during the early part of her illness, I am not able to give you the early history of her case. When I saw her, about the beginning of February, she was much emaciated, complained of severe pain in her right side, with tightness across her chest; incessant cough, with copious expectoration, amounting to two English pints every 24 hours. Copious night sweats, with well-marked hectict fever. Pulse 120. The matter expectorated was of a highly purulent nature, and her relations and others who saw her were of opinion that she could not survive many weeks. The stethoscope applied under the right clavicle detected well-marked pectoriloquism, and the respiration absent to a very considerable extent. The parts were very dull on percussion. I prescribed the inhalation of the iodine mixture, &c. renewed the blister, and ordered a wine-glassfull of the mistura ferri composita of the London Dispensatory, to be taken three times a day. The change which was effected in this patient in the course of a fortnight, was quite remarkable. Want of room prevents me from giving you particulars, but I am proud to say that, in the course of one month, her cure was greatly advanced, and, on the 10th of April, she paid me a domiciliary visit, having walked a distance of three miles. I saw her lately in perfect good health.

June 14th, Mrs. S——, a farmer's lady, about 47 years of age, who had been long subject to winter colds and weakness of the chest, requested me to visit her. I found her in bed. She complained of tightness across the chest, with shooting pains betwixt the shoulders. Her cough was quite distressing, and she expectorated, with much difficulty, about ʒx. of muco-purulent matter every twenty-four hours. Pulse 96. Auscultation detected bronchophony in the right axilla; respiratory murmur absent over a great portion of the right side, and very weak over the whole. She had night sweats, and had lost much flesh. I prescribed the inhaling mixture, and iron medicine, all of which she used with much diligence. Being at a distance, I saw her but seldom. On the 20th she expressed herself better, and her pulse down to 86. On the 25th she was visibly improved, and on the 6th July she was able to drive this length along with her husband. I did not see her again until last week, when I had occasion to visit one of her daughters; and I am happy to state that she continues well.

Mrs. Y——, the wife of a very respectable farmer, æt. 34, who had been subject to severe attacks of inflammation of the lungs and pleura, was delivered of a child on the 15th July last. Had a fair recovery, but a cough, which had annoyed her during pregnancy, now became much worse, and her sputa assumed a purulent appearance. Pulse 70, tongue clean, and bowels nearly regular. Complained of severe tightness across the chest. Auscultation discovered that the vesicular murmur was weak all over the chest, and nearly extinct in the scapular and in-

terscapular regions on the left side. On the 5th of August I prescribed the inhaling mixture, which she contined to use, with many of the other auxilliary remedies used in such cases, for nearly two months, but, I am sorry to say, without deriving the least benefit from any one of them, when I considered her case quite hopeless, and for some time past I have adopted a palliative course of treatment only. She is still in life, but ere many weeks elapse she will have closed her earthly account. The now evident issue of her case has both surprised and disappointed me, as I, at the outset, had every reason to expect a favorable termination.

July 30th, Mrs. W——, æt. 27, of a dark complexion and narrow chest, the lady of a minister of the Church of Scotland, in the Highlands came to her father's in this neighborhood, and was placed under my care. She had been mostly confined, since January 1837, with a hard confined cough, which prevented her from obtaining any thing like regular rest in the night; shooting pains in, and tightness across the chest, and great difficulty of breathing; and for the last four months, she had purulent expectoration, to the extent of 5 oz. or 6 oz. every twenty-four hours, with occasional night sweats, and slight accessions of hectic fever at night. Pulse 120. She was very thin, and had much anxiety in the expression of her countenance. Respiratory murmur very faint, and nearly extinct in the subclavia region on the left side. Percussion natural. I ordered the medicated vapour of iodine and conium to be used three times a day; the body to be sponged with vinegar, &c. with the use of the flesh-brush; a blister to the chest, and the mistura ferri comp. to be taken three times a day. In the course of a week her breathing was much relieved, expectoration much freer, the circulation somewhat mitigated, and she slept soundly at night.

She continued under my care till the 30th of August, during which period she had been regular in using the iodine mixture, in form of vapour, and also the mist. ferri; and at the same time, so much had she improved, that had it not been that her sputa, though much diminished in quantity, still continued purulent, I should have pronounced her cure complete. When she went home, she took a supply of medicines with her; but her husband wrote me, some time afterwards, that she had given up the inhalation, as the use of it distressed her much, and she got considerably worse. Again he wrote about a month ago, for a fresh supply of the iodine mixture, and also for a few bottles of the ferri mixture; and I learned from her sister, a few days since, that she is again much better.

I have only left myself room to say, that from the very favorable issue of a great majority of these cases, my opinion of the influence of the inhalation of iodine and conium is highly favorable; and you are at full liberty to make any use of this letter that you think proper. With many thanks for your disinterested kindness to me, and with every good wish, I am, with the highest respect,

Yours ever,

A. Davidson.

Setham, January 22, 1838."

I indulge the hope that my present communication, and these unreserved details, will procure a large share of increased attention to the subject of inhalation: from many medical friends I have received the most agreeable assurances of their approbation of it. Unfortunately the larger number of cases of this melancholy disease, tuburcular phthisis pulmonalis, admit only of palliative relief; but even in those the inhalation is not only admissible, but very useful in alleviating the symptoms.

A medical gentleman, in the last stage of the disease, came to me, from a considerable distance, in the hope of procuring some relief to his sufferings, which were unusually great and complicated. He was fully aware that he had no probable chance of recovery, but much desired to try the inhalation of iodine and conium. He received such sensible relief from it, that he repeatedly declared he was fully repaid for all the exertions he had made in taking the journey, in the unexpected mitigation of the cough, expectoration, breathing, and general feelings of the chest.

I should too much lengthen this article were I to advance all the arguments which are at my command, derived from experience, in favour of the combined method of treatment which it is my wish to advocate. I say *combined*, for I should regret to be considered as placing my confidence in inhilation alone.

Every one must admit the necessity of seeking for new remedies in phthisis pulmonalis. Is it not true that when once a case is pronounced to be consumptive, the sentence of death is more than half uttered? Urged alike by science and humanity, let us increase our exertions to overcome any particular disease, in proportion to the difficulties by which we are assailed.

As one very leading principle of practice, I apprehend that we should study to overcome the tuburcular diathesis,* and to counteract the fresh formation of tubercles; for it very commonly happens that the relapse of the patient is owing to this cause. This comprehensive view can only be acted upon by using all the means, general and specific, which we think may be best calculated to effect a change in the circulating mass of blood. In addition to the medical treatment, all the juvantia are to be sought for in the general regimen, and all the lœdentia are to be avoided; and without which care, no great disease can be cured.

In the employment of the inhalation, perseverance is necessary, and, in some instances, for many months. The object sought to be obtained is not merely palliative benefit—not merely a temporary impression on the morbid function—but the superseding of the diseased action by a healthy one, and the effecting some organic change.

Many other medicines may be employed usefully in the way of inhalation for tubercular irritation, chronic bronchitis, spasmodic asthma,

* Lately I had an opportunity of seeing the character of hereditary tubercular disease strongly exemplified, in an infant that died in a state of the most extreme emaciation, at the age of four months. The lungs, liver, and spleen, were universally and very closely studded with tubercles; some minute, some large, some hard, others partly or wholly softened. Nor were the intestines free. The mother had died a month before, from the worst complication of pulmonary and intestinal disease I have ever seen; the lungs broken up into cavities, ulcers in the intestines, and tubercles in their coats.

and certain conditions of tracheal disease. These, with the exception of creosote and purified acetic acid, I have noticed in my publication. For the tubercular disease of the lungs, it is in the use of the iodine and conium alone that I place my hopes as a curative agent; I will not say confidence, for that never can be entirely felt in any known treatment of this most fatal of all diseases.

I conclude with expressing my hope that my professional brethren will make fair trial of the plan which I have recommended; and I shall be obliged by receiving communications from them, whether in favour of or against it, for truth is my object. I trust that none will condemn the practice without experience, for this would be prejudice and injustice.

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6. *Medico-Legal considerations on Monomania; by M. Marc.*— The criminal records of every country afford abundant evidence, that the scaffold in former times has had many victims, who would now be confined in lunatic asylums, or otherwise treated as insane. "It was reserved for *Pinel*," says the author, "to designate the extraordinary position in which, without any sensible abberation of the intellectual faculties, persons are led to acts which, in the eyes of the vulgar, are only explicable on the grounds of extreme depravity. At a later period, his distinguished pupil, *Dr. Esquirol*, established and developed the doctrine of partial delirium, or monomania, which is characterized by a small number of fixed, dominant, and exclusive ideas, and even in one idea alone, to which the insanity is confined, the being, with regard to other objects, perfectly sound." Several examples are given of murders perpetrated by monomaniacs, some of which seemed to be the result of blind and instructive impulse independent of the will, and others on certain processes of reasoning which it is difficult to understand or to develope. Various examples have occurred in this country, in which misplaced sympathy, and the love of the romantic, have elevated to a singular species of dignity, the prepetrators of some of the most henious offences, and thus invested them with an interest which has sometimes had a powerful and unfortunate influence on weak and susceptible minds.

Of this effect the author gives an instance in the case of *Augusta Strohm*, who, when very young, had attended at Dresden the execution of a woman named *Schaefer* for murder. The care with which the culprit was prepared for death, the procession to the scaffold, the execution, produced on Augusta Strohm an impression of which she could never get rid; and from this time she thought that it would be the greatest blessing to end her life in the same way, to have the same preparation for death, and to have an exit equally edifying with that of Schaefer. The idea never quitted her; but her moral principles struggled against it, till the occurrence of another execution for murder, that of a man named *Kaltofen*, which took place at Dresden many years afterwards, when she was about thirty. The deportment of this man before the great number of persons who visited him in prison; the presence of a priest, who never ceased to pray with him; the hypoc-

risy of the culprit himself; the imposing appearance of the military escort which conducted him to the scaffold; the immense crowd of spectators, and the sentiment of compassion which, in spite of the enormity of the offence, depicted itself on the countenances of many of them; the calm aspect of the condemned person; his address to the people; the approach of the priest to soften the last moments of his life, together with the promptitude and apparent mildness of the kind of death which he suffered, changed into a fixed resolution the perverted feelings of Augusta Strohm.

Six weeks afterwards, she invited a fine young woman, a very particular friend, to take coffee, and availed herself of an accidental slumber, to attack her with a hatchet. This not sufficing for her destruction, the consummation of the deed was perpetrated, after a faint struggle, by stabs on the breast with a knife. Strohm then cleansed and abjusted the room, placed the body on the bed, and lay down beside it, with the intention of passing the night. But when daylight began to disappear she was seized with a tremor and oppression, and determined immediately to deliver herself up to the hands of justice, which she only meant to do the following morning. She then drest herself with care, took with her a prayer book, and also money and linen, which she knew would be necessary during her imprisonment, and forthwith presented herself to an officer of police, as the murderer of her friend, whose body she represented would be found in her appartment. We are left to infer the close of the catastrophe.—*Edinburgh Medical and Surgical Journal.*

II.—ANALYTICAL.

Art. I.—Hydrosudopathia.

Hydrosudopathia, *or a Therapeutic system founded on the combined action of cold water and exciting cutaneous perspiration; by Louis Fleury, resident Surgeon of the Hospitals, member of the Anatomical Society, &c.,* [*Translated and abridged from the French.*]

Looking over one of a late number of the French Journals, (*Archives Generales de Medecine,*) we were struck with a new word, Hydrosudopathia, noticed by the Germans as, *Die Wassercuren des Priesnitz.* The heading of the article reminded us of Dr. Sangrado, whom we little dreamt of seeing revived and really acted out at the present day.

However, on a careful perusal, the importance which the subject has assumed, and the pleasant style of M. Fleury, who appears to be a young man of some spirit, induced the belief that an account of this new and astonishing mode of treatment would prove interesting to the readers of the Western Journal, and we accord-

ingly offer the article, with the exception of the cases, as follows:

In a fertile valley of the Mountains of Austrian Silesia, between Glatz and Neiss, at an elevation of eighteen hundred feet above the Sea; there is a little hamlet, of seventeen families. But a few years since, the artist, or the traveller who loved picturesque scenery, was the only one who ever claimed the open hospitality of this colony of Shepherds and Husbandmen. Their very name was scarcely known in the town, six hundred feet below, at the foot of the cliff which supported their cabins—now the same town Freiwaldau, is but the resting place: while Græfenberg is the resort of German princes, and travellers from all parts of the world; who desert Carlsbad, Ems, and Baden!—Its name is on every tongue, the poets immortalize it in their verse, and the easy enthusiasm of our German neighbours has induced them to write several works descriptive of it.

This rapidly acquired renown is the work of a simple peasant, who was led by chance, perhaps as much as by observation, to found a Medical establishment, in which the mode of treatment will no doubt appear astonishing, since it depends upon the free administration of two powerful therapeutic agents, which are too much despised now-a-days; cold water, and exciting cutaneous perspiration.

Some details gathered from German works, and the notes furnished me by Baron D Ch——, who has studied the treatment upon the spot, may be read with interest.

Vincent Priesnitz was born the 4th of July 1799, in one of the cottages on the summit of the Græfenberg, and, as his parents were in easy circumstances, he received a pretty good education, which excited a spirit of observation, with uncommon tact and penetration; when he had scarcely grown up, he noticed, while assisting his father in rural labors, that in sprains, bruises and tumours of horses' feet, the cure was much hastened by bathing with cold water; having frequently verified this fact, and assured himself of its efficacy, he employed it on several animals: success crowned all his efforts, and he was inspired with great confidence in the virtues of cold water.

In 1816, the young Priesnitz was thrown from a fiery horse, that trod upon his face, severely bruised his left arm, and broke two of his ribs. A surgeon was called, who, having unsuccessful-

ly attempted to reduce the fracture, declared, that if the patient escaped the danger which threatened him, he would be long disabled. The young man, dissatisfied with this opinion, determined to treat himself; for this end, he rested his chest against a chair, and taking an inspiration made the fragments resume their natural position; applied a wet towel as a bandage, drank cold water, and was well in a few days.

This simple cure struck the imagination of Priesnitz, he attributed to the means he had employed, what we see every day resulting from the unaided efforts of nature, and devoted himself with new ardour to investigating the general effects of cold, and the laws which regulate its application in the diseases of man. I will repeat here a single experiment: Two hogs were fed, one with cold, the other with hot food, in the first, the intestines were found firm, white and resisting, while in the second, they were reddened and soft, and so easily torn that they could not be used by the sausage maker.

Priesnitz, having recognized the good effects of cold water in the treatment of many diseases, soon thought that an indispensable condition to render its application as efficacious as possible, was to cause profuse and frequent transpiration of the skin, and the combination of these two means became the basis of his medication. He cured some cases of gout and rheumatism in this way; which were noised about the country and his house was soon too small to contain the numbers who came for advice. His reputation increased rapidly, and the Mountaineers soon regarded him as a protégé of Heaven: according to them, the water possessed no virtue in itself, and owed its action to the secret power of Priesnitz: it is thus every where, in the eyes of the vulgar, the simplest things assume a marvellous appearance without which they would often be rejected with disdain. But this very success made Priesnitz many enemies; the priests cast anathemas upon his devilish art: the physicians and veterinaries denounced him for practicing illegally, and the authorities were obliged to intervene.

In 1830, the Austrian government granted Priesnitz authority to receive patients and treat them in his own way: from this time his establishment was rapidly increased, for counting only fifty-four patients the first year, he had sixty-four the next, one hund-

red and eighteen in 1832, two hundred and six in 1833, two hundred and fifty-six in 1834, three hundred and forty-two in 1835, and four hundred and sixty-nine in 1836.

He has now built three large houses which cannot contain the patients who come from all parts, and the little town of Friewaldau has been obliged to erect a resting house *(Succursale)*.—Analogous establishments are formed elsewhere; Dr. Emel has organized one two leagues from Vienna, at Kaltenleitgeb, near Rodaun; Dr. Neiderfuhe, in the earldom of Glatz; Dr. Lehman, three miles from Breslau; it is said that others will be instituted in Bavaria, in Saxony, at Freiberg, in Wirtemberg and even at St. Petersburg.

The treatment which has gained so great reputation in Germany, consists of diet, cutaneous excitation, and cold water.

Dietetic Regimen.—According to Mr. Priesnitz, hot food produces injurious effects upon all animals; as man is subject to nearly the same general laws, he thinks that the frequent derangements of the alimentary canal, are entirely owing to our use of food at high temperatures, and that it will be easy to prevent, or remedy them by using it cold and by choosing water for our only drink. Another principle to which he attaches great importance, is, that dieting, instead of being useful, must generally enfeeble the patient, and deprive the economy of the power it so needs to combat disease; an opinion held by many others. This is the regimen at Græfenberg:—

At breakfast, cold milk, bread and butter;—any thing may be eaten at dinner except spices, and as much as the appetite demands; warm meats are allowed those who are slightly affected, but in serious cases, all the food is cold, cold water the only drink without exception—Supper is like the dinner. During the day, between meals cold water is to be drank frequently, from 20 to 30 glasses in twenty-four hours.

Cutaneous Excitation.—It has always been thought serviceable to excite frequent perspiration, as is proved by the *sudatori* of the Romans, Greeks, Turks, Russians, &c.;—but it is very important to know how to excite, to regulate and to terminate it in the most advantageous manner. Mr. Priesnitz thinks that all passive transpiration is hurtful; that steam is injurious to the lungs and brain; that a salutary transpiration must be produced by exercising and

concentrating the vital functions, and he employs the following method :—

The patient goes to bed and is swathed with great care in a woollen covering ; one or two feather beds are super-added—the head is a little raised. When perspiration is well established, the windows are opened and the patient takes, the first day, a quarter glass of cold water ; which is insensibly augmented so that at the end of several days he takes a whole glass, every quarter of an hour. This is kept up according to the strength of the individual and the nature of the disease, from a quarter of an hour, to six and seven hours—counting from the moment when the perspiration is observed. At first, this state is not easily induced, but the sweat soon becomes so abundant, that Mr. D Ch—— has seen it soak through the covering and mattresses, and fall to the floor under the bed. When it is thought time to terminate the excretion, the feather beds are removed, the patient gets up without laying aside his covering, bathes his figure and chest with cold water, and plunges into a large basin of water ; which has been brought from the mountain in pipes ; its termperature never exeeeds 44 deg. of Fahrenheit, in winter it descends to 36 deg. and sometimes to 32 deg. They plunge into this basin at all seasons, at first, it is a mere immersion, afterward they remain two or three minutes, and sometimes longer. Priesnitz says he once remained in the bath ten hours, to cure a hot fever. Few have courage to encounter a sensation which is at first painful—such, terminate the perspiration in a bath with two or three inches of water at 59 or 68 deg. During their noviciate, which lasts about a week, the temperature is gradually reduced and the basin used. Immediately after the immersion, they dress, take a walk and return to breakfast.

Application of cold water.—Besides the baths of immersion, cold water is used partially, *loco dolenti*, and also in douches, enemata, and compresses.

Hip bath.—About three inches of cold water is poured into a suitable apparatus, in which the patient sits for twenty minutes or an hour, during which time all the parts are rubbed, and the *bas ventre* occasionally moistened.

Foot Bath.—The feet are placed in half an inch of cold water, rubbed one against the other ; or with the hand, and the water becomes rapidly warmed and sometimes absorbed.

Bath for the limbs.—The affected member is placed with a small quantity of water, in a vessel adapted to the shape of the parts—care is always taken to rub forcibly.

Head bath.—According to the seat of the disease, the face or the occiput is placed in a vessel containing three inches of water. It is always necessary to continue the process until the fluid be so warmed, at the expense of the caloric of the submerged part, as not to feel cold.

Douches.—Are of two sorts, those of the establishment, which are little used, and badly arranged; and those of the forest, situated in the mountains, half an hour's walk from the house, and unprotected; the water is brought in spouts, and is allowed to fall ten or fifteen feet in a column one inch and a half in diameter upon affected parts, not less than five minutes or more than one hour, care being taken to protect the head and chest. They are used at all seasons and temperature. Mr. D Ch—— saw persons exposed to them in the midst of snow and ice, and he took them himself, during last January and February.

Enemata.—Are used at night; at first they produce a painful sensation and a desire to reject them instantly, but the intestine becomes habituated to their presence.

Wet Compresses—Are applied to different parts according to the affection, frequently removed, or left in place until completely dry. Sometimes a girdle five feet long with eighteen inches at one end soaked in cold water, is applied around the abdomen.

Wet cloths—Are rolled around the patients like that used to excite perspiration. These are renewed every five minutes in acute inflammatory maladies, as pneumonia.

Order of treatment, general effects, duration, and termination.—The various curative means enumerated, are not indifferently employed; and it is impossible to specify all the modifications to suit sex, age, strength and constitution of the patient, the kind of affection, its complicatoins, &c.; so that we shall speak in general terms.

At four o'clock in the morning the patient is woke up to be wrapped for a sweat, which is prolonged according to circumstances, this is terminated by the bath of immersion. Then a walk until breakfast, after an hour, a douche or hip bath, dine at noon —from three to six, a shorter sweat than in the morning, followed by

the bath; sup at eight; at nine, a hip or foot bath or enema—retire at ten. Those who prefer but one sweat a day, prolong that of the morning until noon, after which they are free. Some concessions are made at first, but after a week all must submit to the rules just described. After some time cutaneous eruptions and boils make their appearance; diarrhœa comes on, abscesses form, or venereal symptoms reappear that had long lain dormant; some one of these phenomena is requisite to make the cure efficacious. This crisis is usually developed at the end of six weeks or two months, and may be renewed at intervals. The treatment is continued four or six months, or a year, according to the severity of the disease.

Though M. Priesnitz thinks he can successfully combat many diseases, he does not pretend to make his treatment a panacea, in which he shows more good sense than most inventors. He attributes great power to his method in rheumatism, gout, constitutional syphilis, diseases of the skin, even the exanthemata, in hæmorrhoids, fistula, caries, chronic engorgements of different tissues, scrofula, chronic affections of the digestive tube; he has recourse to it in some acute inflammatory diseases—as angina and opthalmia; he even ventures to envelope in the cold water cloth a patient with pneumonia or peritonitis.

After citing some wonderful cures, and taken from the German authors, or communicated to him, complaining of the very common want of accuracy in their diagnosis, M. Fleury, concludes by a separate examination of the means employed, the treatment as a whole, and its action upon different diseases.

Internal use of cold water.—Without repeating all the arguments that have been accumulated to prove that water is the *natural* drink of man, I will merely state that of all liquids, it best quenches thirst, that it facilitates digestion, and that according to the experience of M. M. Leuret and Lassaigne, it is indispensable to the formation of chyle.

M. Ratier says;—"that certain cures, due to water alone, are often attributed to something else. It diminishes the febrile heat, arouses the secretions and exhalations and evidently modifies their products. It were better for physicians to disseminate these truths than to prescribe with so much ado,—tisans, that have no other virtue. There are few diseases in which the proper administraion of water may not, at least aid the cure."

M. Guerard says, "if we more frequently obeyed the natural indications, pure water would be more used than any tisan."

All writers agree generally, with those cited, but in spite of such favorable opinions of the use of cold water, no one conceived or dared to make consecutive and complete experiments. The isolated facts recorded by Senac, Chomel, and others, have not excited the researches that they would have justified.

External application.—Water has been oftener and more methodically employed in this manner, but we find it alternately praised and rejected, from the time of Hippocrates who acknowledged its great power. It is now much used in surgery; the good effects obtained by M. M. Berard, Cloquet, Gerdy, Sanson, &c., are well known, and Percy assures us that applications of cold water may cure spontaneous luxations and incomplete anchyloses.

It has been less used *for internal affections.*—Van Sweiten relates that an Italian physician treated hæmoptisis successfully by applying compresses, soaked in cold water, to the naked chest.—A case was reported in this Journal, of the efficacy in puerperal peritonitis, of ice water, internally and externally—the English have used affusions at a temperature of 51 deg. in Scarlatina; Phytt cured obstinate constipation by affusions to the feet.

I will not dilate upon the proper temperature that should be given to the water; we know that cold acts in three ways; at very low temperatures it causes the death of the tissues in the same way as extreme heat—when moderate, it acts in different ways, thus, it is tonic or excitant,— by the reaction it produces when used for a short time, but sedative when long continued.

Excitement of the skin.—In arousing perspiration, the skin is first softened, and rendered fit to receive the action of therapeutic agents, the natural secretion is excited, and made to re-appear when suppressed. As it is a frequent *natural crisis*, it is often highly serviceable to induce it.

The whole treatment.—M. Priesnitz brings into play all the different properties ascribed to cold water and perspiration, and does not fear to unite them, though generally considered incompatible. We know the dangers attributed to the use of water when there is perspiration. The practice of the Russians coming out of their vapour baths to plunge into water or snow, is not explained by saying that their return to the stove would take a-

way the danger of such a custom. Baglivi, Rush, and Berard, have reported cases of death following a draught of cold water taken during free perspiration. Priesnitz says that the cold water when a man is perspiring can only be dangerous when, from any cause, the respiratory apparatus is excited; on the contrary, when respiration is not accelerated it is salutary.

Application of the treatment.—We must here establish some distinction: in the case of *acute inflammatory affections*, cold water is employed as a sedative, that is, continuously. In Surgery we see great advantages arising from its use in this way, and it may be asked if a remedy by which we can suspend the circulation, as long as we choose, be not preferable to such means, as local or general bloodletting, that act by drawing off from the sanguine mass a small quantity, inappreciable to the affected organ, or a large amount that would be prejudicial to the whole economy? M. Forville regards cold affusions as the only remedy that will cut short meningitis, why are they not used in other inflammations? In the actual state of our notions, it certainly appears very strange to surround a pneumonic patient with a cold wet cloth, but should this motive induce us to proscribe a practice proved to be rapidly and happily efficacious?

In chronic local diseases, cold water may be used as a sedative or excitant, and since very good effects have been observed to follow its application in gastralgia and other neuroses, in engorgements, cold abscesses, &c., we admit that it may succeed in other cases.

General chronic diseases.—Here the question turns upon a doctrine, which though very ancient, is far from being determined, that of *crisis*. Priesnitz, who admits the doctrine, uses cold water as a tonic, to enable the economy to resist the disease, and to give the *natural healing power* energy to bring on the crisis. The excitement aroused in the skin, effects the double purpose of increasing the intensity of action of the cold water, and of directing the crisis to the skin and subcutaneous cellular tissue. So he does not consider the cure manifest until these phenomena appear, and he says they are never wanting when properly excited. He acknowledges, however numerous exceptions to this rule, in old age, and he has determined to receive into his establishment, no more patients advanced in years.

I will not further discuss this topic, in favour of which so many well observed facts may be advanced, in opposition to the negations of others—but it may be useful to act upon the suggestion of Bordeu, and *clear up these important questions by observation.* This will be especially necessary in regard to diseases that are not well understood, as cutaneous affections, syphilis, &c.

These views have induced me to publish an account of Priesnitz, whose method is certainly susceptible of modifications in form, but undoubtedly energetic, and already remarkable for its negative results, were there no others.

April 1838. J. A. W.

ART. II.—FRACTURES TREATED WITH STARCHED BANDAGES.

M. Velpeau, lately read a notice of his mode of treatment, before the Royal Academy of Sciences. He immediately reduces the fracture in all cases, even when compound—the limb is then surrounded with a roller bandage, from the toes or fingers, to the proximal extremity—the pressure is merely sufficient to maintain the fragments in their proper direction; instead of using splints and pads, the envelope is made rigid by the application of starch prepared with water, after the plan of M. Seutin, of Brussels, though he uses a double bandage, pads, and pasteboard splints.—The whole apparatus dries in 2 or 4 days, when the limb and bandage are so glued together that displacement is impossible; compression is every where equalized, the tissues are sustained, and there is no pain. Patients can move in bed as if there were a simple bruise of the limb, instead of being forced to lie motionless for six or eight weeks. They may sit up using a high chair, so as to bend the thigh, but moderately—and they can walk with crutches, having the foot supported by a stirrup from their neck.—*Translated from the Archives Generales de Medicine.*

ART. III.—CHRONIC HYDROCEPHALUS, CURED BY A FRACTURE OF THE SKULL.

A child 5 years old, with every symptom of commencing hydrocephalus, and likely to be soon severely attacked, was violently kicked and thrown down by a cow.

Dr. Hofling being called, observed a gaping fracture of the frontal bone. The child had vomited, but that symptom had ceased, and there was no decided sign of general or cerebral reaction. Antiphlogistic treatment and a simple dressing fulfilled every indication. Changing the dressing, all the lint was found soaked with a clear limpid inodorous fluid—which still flowed from the wound—and continued very abundant for eight days—and then gradually diminished. When it ceased, the cicatrization was rapid, and the child was soon well. It is now three years since this happy accident, the general health is very good, and the head is nearly reduced to its normal size.

Dr. Hofling closes his account by blaming the general inactivity of surgeons, in the treatment of Hydrocephalus. The possibility of curing this dreadful disease by paracentesis has been amply demonstrated. Besides we must remember the adage,—*In extremis morbis melius anceps remedium quam nullum*, which has induced Dr. H. to prescribe the evacuation of the cerebral fluid, by degrees, with successive punctures of a needle or a very small trochar.—*Ibid.*

Art. IV.—A Quarantine on the Danube.

The ridiculous mummery of a Quarantine on the Danube, is so well hit off by Miss Pardoe, in her late work, entitled the "*City of the Sultan*," that we are tempted to transcribe it, for such of our readers as may not have purchased her volumes. When she left Constantinople, the plague was prevailing in that city.

The town and fortress of Orsova occupy an island of considerable length, and have a very picturesque appearance; the gleaming minaret of the solitary mosque cutting against the party-coloured foliage that clothes the hills by which it is overshadowed; and the castellated and buttressed wall of the town reflecting itself in the river-tide. Much of this wall is now in ruin, although it may still be traced entirely along the bank. The island was fortified by the Austrians, but was afterwards ceded to the Turks, together with the fortress of Belgrade by the Emperor Leopold.

From this point we could distinguish the Quarantine establishment, niched in at the foot of the Banut mountains, and distant from the town of Alt Orsova about a mile. But we were obliged to overshoot it by nearly half a league, from the fact of their being no boats for hire until we reached the village of Tekia, situated by the river side, whence the embarkations of the "condemned" universally take place.

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When the large flat-bottomed barge in which we were to be conveyed thither, was freighted with our packages, and that we were about to push off, we were detained for an instant by the declaration of the little Servian beauty that she had determined to be of the party; and on board she accordingly came, having flung over her house-costume a magnificent pelisse of gray cloth, eged with sable, and worked with gold.

In half an hour we reached a long wooden shed, built as a receiving house for the quarantine; and here we were detained until our patience was fairly outworn, and that our hunger had become most painful. A double partition of wood parted us from the authorities, who graciously welcomed us to the horrors of incarceration; and we were obliged to seat ourselves on the luggage, and await the arrival of the bullock-carriages that were to convey our travelling-gear to its destination.

All was at last accomplished; and after taking leave of our pretty Servian companion, who laughed heartily at my pressing invitation to her to share our imprisonment; we followed the train of wagons; the rear of the party being brought up by an Austrian soldier, armed with a loaded musket, and a fixed bayonet. We were, however, in no mood to yield to gloomy ideas or feelings. We had a blue sky above us, a fine turf beneath our feet, and the prospect of another half hour of comparative liberty; and we were straggling gaily about the plain, laughing and speculating on our approaching imprisonment, when we were called to order by the guard; and compelled to keep to the high road, lest we should contaminate the grass and thistles among which we were wandering.

Before we reached the quarantine ground, we passed the grave yard destined to receive those who die of plague during their incarceration. It was closely fenced; and rendered still more gloomy by a tall crucifix, painted red, and supporting a most revolting effigy of Our Lord.

On ringing a bell the great gates of the establishment were flung "hospitably" back, and we were requested to allow the wagons to enter before us, lest we should contaminate the oxen by our contact; and after passing through a couple of walled yards, surrounded by warehouses for receiving merchandize, we entered a third enclosure wherein we were met by the governor and surgeon; who keeping at a respectful distance, invited us to enter a dark, white-washed, iron-grated cell, in order to have our passports examined.

A wooden lattice separated us from our new hosts; and the peasant who had conducted us from the river side, stood in front of a small opening made for the purpose, and held at arm's length the papers which were demanded. Much bowing and scraping ensued between M. le Directeur, the foreign Nobleman, and the Hungarian Chevalier; and we had reason to congratulate ourselves on their companionship, as it produced a visible increase of courtesy on the part of the local authorities: a courtesy which did not however, exempt us from the "locks, bolts, and bars" of the Lazaretto. As I was only the second lady who had been unfortunate enough to come under his keeping, the Governor very politely resolved to commence his arrangements by providing me with as good a cell as he had then vacant—not that he

called the space into which he was about to consign me, a *cachot*—by no means—the word "cell" being somewhat grating, another term has been invented; and the dens of the Lazaretto of Orsova are designated *colleves*, which signifies—nothing.

But before we could take possession of our prison, another gate had yet to be unlocked; which admitted us into a large space enclosed within a high wall, and containing the *elite* of the accommodations.—The cells, like those of a madhouse in Turkey, were built round the four sides of a garden; and each had a small entrance-court, paved with stone. As none of the buildings were capacious enough to contain our whole party, it was at lenght arranged that five of us should take one of them, in which we might make such arrangements as we preferred; and that the three others should be accommodated as near to us as possible. Upon which understanding, M. le Directeur, a plump, good-natured-looking little old man, with a bit of soiled red ribbon displayed in the button-hole of a threadbare grey frock coat, a ruffled shirt, and the funniest of all forage caps, led the way to Cell, or I should rather say *colleve*, No. 2: and when one of his followers had unlocked the yellow and black gate of the court, he bowed ceremoniously to me, as he pointed to two melancholy-looking trees, which had contrived to exist amid the rude paving, and exclaimed with a tone and gesture perfectly dramatic; "*Soyez la bien venue, Madame; voyez les beaux arbres que vous avez!*"

It was extremely fortunate that the day chanced to be one of cloudless sunshine, and that we consequently saw every thing under its most favorable aspect; for there was nothing particularly exhilarating in the interior of the buildings. Windows both barred and grated; walls whitewashed and weather-stained; chairs, tables, and sofa all of wood, which is a "non-conductor," and whitewashed like the walls; were the only objects that met our eyes. But as we were all both tired and hungry, we welcomed even these; and only begged to learn where we must address ourselves, in order to procure some food with as little delay as possible.

This brought us to the second feature of our position; for a window whose shutter was padlocked up, was unfastened; a bell was rung, and at a casement grated like our own appeared the Restaurateur of the Lazaretto to receive his instructions. Dinner was instantly ordered; bread and wine were speedily procured; and we were waited upon by a very gaily-dressed, conceited individual, who announced himself to be "our keeper;" a piece of intelligence which once more carried back my thoughts to the *Timerhazes*, or madhouses of Constantinople; and I began half to apprehend that we had indeed intruded into one of those melancholy establishments. At five o'clock we were furnished with a very bad dinner; bedding was brought in; and at sunset we were locked up.

On the morrow we were somewhat disconcerted to learn that the court of the *colleve* was to be our boundary during the ten days of our imprisonment: and our officious "keeper" very carefully locked the gate every time that he thought proper to make his escape. But this was a trifling annoyance to that by which it was succeeded; and which

consisted of an announcement that at midday the Surgeon of the Lazaretto, and the Examining Officer, would visit us, in order to take an inventory of every thing in our possession. Each trunk, portmanteau, and basket, was to be unpacked; in short, we were even to declare the contents of our purses!

We were already aware that the Austrian was the most paternal of all Governments; taking an interest in the private affairs, not only of its own subjects, but also in those of strangers; yet I confess for such a proceeding as the present we were totally unprepared.

There was, however, no remedy; and the "secret recesses" of every package were laid bare before the "authorities." The reason given for this inconvenient and revolting stretch of power, is the desire of the Government that, in the event of a decease, the friends of the dead person may receive every part of his property upon demand; the inventory held by the proper officers effectually preventing the keeper of the *colleve* from plundering the trunks; but certain little circumstances which we remarked during the investigation rather tended to weaken our faith in the disinterestedness of the arrangement.

When the possession of any Turkish article was mentioned, there was a visible excitement. Even a lantern exhibited by my father was entered on the list; and the number of chibouk-tubes, of tobacco purses and other trifles, which could be of no value to the survivors of a deceased person, were registered with equal exactness.

In my own case they were peculiarly inquisitive; counting my rings, and recording my bracelets and necklaces. Not a pocket-handkerchief, nor a waiste-ribbon escaped; and I was more than once asked if I had really exhibited the whole of my wardrobe. My books and drawings were seized without ceremony, and carried off to be examined by the proper officer; and the worthy functionaries at length departed in full possession of all which related to our peripatetic properties.

It required a couple of hours to soften down the "chafed humours" of the gentlemen of the party; which were not rendered more gentle by the demand of the keeper, that they should deliver up all their arms, of whatever description they might be; on the understanding that they were to be restored to them on the day of their own delivery. But the request did not meet with the ready acquiescence which had been anticipated. Colonel ——— had travelled with the whole of his uniform; and when our attendant advanced to lay sacrilegious hands upon his sword, which was hanging over a chair, all the quick sense of honour of the British soldier was roused at once; and, as the indignant blood rushed to his brow, he vowed that he would fell to the earth the first man who dared to meddle with his side-arms. In vain did the keeper insist, and the Chevalier explain; the English heart beat too high to heed either the one or the other: and the pistol-laden functionary was obliged to depart without the sword of the gallant Guardsman. Of course he made his report to the Governor; but the worthy little old gentleman had too much good sense to persist in the demand; and no allusion was afterwards made to the subject.

Twice each day we were visited by the medical officer, who just popped his head in at the door, and smiled forth: "Ah! quite well,

quite well, I see—impossible to be better—good morning," away he went, without affording us time to complain had we been so inclined. M. le Directeur also paid us several visits, always carefully pointing his cane before him, as a warning to us not to approach him too closely: and never failing to commence the conversation by the ejaculation of, "*Madame, je vous salue—ha! les beaux arbres que vous avez!*" It was really worse than ludicrous.

As a signal mark of favour, we were occasionally permitted to walk, under the charge of the keeper, from the gate of our own *colleve*-court to that of our friends, and to receive their visits in return, when we had always a very laughable interview; the incarcerated individuals amusing themselves by rocking to and fro behind the bars of their prison-grates, and roaring like wild beasts in a menagerie.

There are two descriptions of persons to whom I would particularly recommend an avoidance of the Quarantine at Orsova. The *ennuye* and the *bon vivant*. For the first there is no refuge save sleep, and the few doggrel attempts at poetry which may be partially traced thro' the white-wash; the outpourings of an impatient spirit weary of its thrall; with the occasional society of the "keeper," who is as cold and as impracticable as his own keys. The very books of which the wanderer has made his travelling companions; and some of which would bear a second perusal, at all events in a quarantine cell, are carried off and sealed up, as though every volume were redolent of high treason; and he is left to his own resources as ruthlessly as if he were indeed "the last man;" and that he had done with the world and the world with him.

To the second I need only hint that the *restaurant* is a Government monoply, where you are provided for at a fixed sum per day; and fed upon whatever it may please the Comptroller of the Kitchen to serve up. Nor can you procure any wine save the sour and unpalatable *vin du pays*, however liberally you may be disposed to pay for it.

Those travellers are fortunate, who, like ourselves, can meet the captivity of quarantine with pleasant companions, light hearts, and unfailing spirits; finding food for mirth in their very miseries; and forgetting the annoyance of present detention in the anticipation of future freedom.

The last day of our captivity was the most tedious portion of the whole, for the prospect of speedy emancipation kept us in a constant state of irritation. Our luggage was collected and arranged with a haste which by no means added to its comfort or convenience, and which only left us an additional hour of unoccupied restlessness; while the servants were urged to a continual commotion that robbed us even of the tranquility which might have made our prison-house somewhat more endurable.

The morning of the fifteenth of October was that of our release.—We were all ready to depart at daybreak; and after the necessary ceremonies had been gone through, we assembled in a large grassy space, bounded on one side by the Danube, and skirted on the other by the Quarantine buildings. This enclosure was crowded with oxen, wagons, and bales of merchandize; and about fifty peasants were employed in lading such goods as were admitted to *pratique*, after their period of

purification had been accomplished. Here we also found carriages for hire, two of which we immediately engaged to convey some of our party to the celebrated Baths of Mahadia; which, being situated off our road, we were anxious to reach as speedily as possible, in order to enable us to secure our passage on board the Steam Packet, that was to leave Drinkova at daybreak the following morning.

Three of the party accordingly took possession of a Caleche, drawn by a trio of wiry-looking little chestnut ponies, harnessed in the most inartificial way in the world, with bridles, traces, and reins of stout cord; while the others mounted one of the country wagons, filled with hay, and dragged by a couple of wild-looking horses.

Never was there a more sincere exhibition of self-gratulation than that with which we passed the boundary gate of the Quarantine ground; and found ourselves beside the tall stone cross that is erected on its outskirt, as if to claim the thanksgiving of the newly-liberated."

ART. V.—*Extracts from a memeoir on the present state of organic chemistry, read before the Royal Academy of Sciences.* By M. DUMAS.

(Tanslated for the Western Journal, by J. A. W.)

Mineral chemistry embraces the history of elementary bodies, of the Cinary and saline combinations. But elementary bodies may be divided into several very natural groups, so that if we study attentively the properties of any species, we may almost foresee and describe those of the species with which it is connected. The study of oxygen teaches us the history of sulphur, that of chlorine initiates us into the intimate details of the properties of iodine, &c. This task, which would appear superhuman, embracing the analysis of a thousand various substances, has nevertheless been so nearly accomplished in less than half a century, that there is now, only here and there a link to be supplied.

It may be readily conceived, that with the fifty-four elements now recognized, with a small number of combinations and with all the Cinary and saline compounds, we cannot only form all the compounds known in the mineral kingdom, bu', also, an immense number of analogous substances. How shall we apply these principles, with equal success, to organic chemistry? here are as many and as various species of compounds as in the other department. Besides, instead of fifty-four elements, we have only three or four, in most known substances. In a word, how can we, by the aid of the laws of organic chemistry, explain or class the

various organized compound, which are nearly all formed of carbon, hydrogen, oxygen and sometimes nitrogen.

This is a great question in natural philosophy, a question well calculated to excite the emulation of chemists to the highest degree; once resolved, the greatest triumphs await the scientific enquirer, the mysteries of vegetation and animal life will be spread before us; we shall seize the key to all the rapid and singular modifications of matter which take place in animals and plants; and further, we shall discover the means of imitating them in our laboratories. This great question is now resolved; it only remains for us to unravel all the consequences which its solution involves. Truly it were difficult to imagine anything worthy a comparison with the simple, uniform, and beautiful laws, which have been unveiled by experiments within a few years. To produce with three or four elements, combinations more varied than those of the whole mineral kingdom, nature has taken a plan as simple as unexpected, for with these elements she has formed compounds, that possess all the properties of elementary bodies. This is the whole secret of organic chemistry.

It thus contains its elements within itself, cyanogen, fecula, benzoin, the elements of ammonia, the alcohols and analogous bodies are the true elements, and not the definite principles, carbon, hydrogen, oxygen and nitrogen, which do not exist until every trace of organization has disappeared. Mineral chemistry embraces all the bodies that result from the combinations of true elements; on the contrary, organic chemistry embraces all substances formed from compounds that act as elementary. Inorganic chemistry has simple elements, organic chemistry has compound ones, this is the whole difference. The laws of combination and of reaction are similar in both.

Perhaps we may add, by one of these foresights into the future, sometimes granted, to the philosophic vision, the least advanced of the two branches we have been discussing, may be that we consider the most so. If oxygen, sulphur and the metals be compounds, no one may foretell how and when their decomposition will be effected. If it be possible, it will require the exercise of forces that are unknown to us. In organic chemistry the difficulty is much less, and precisely the reverse, there, indeed, we know that the *elements* are compound; the whole art of the

chemist consists in conducting his manipulations as to avoid their destruction which would carry them back to the state of indecomposable elements, which may be easily foreseen and prevented since it is regulated by simple laws. Thus we may nearly always recognize an organic root, and change it by combination into another, without resolving it into its elements.

Theus organic chemistry presents elements, some of which are equivalents to the metals, others analogous to oxygen, chlorine, sulphur, &c., these *roots* (*radicaux*) combine with one another or with elements, properly so called, and give rise, under the simplest laws of organic chemistry, to all organic combinations.

Mr. Dumas, here explained the design of the grand series of experiments which he and M. Leibig have conceived, for the advancement of science, and announced the plan which they propose to follow. All organic bodies are to be analyzed by them, that they have not already examined. They will submit all the analyses published, to an attentive verification, and they beg chemists willingly to subject theirs to the same rigid scrutiny. Nothing is more essential to all, than analyses upon which we may depend, and which we may use with full confidence in these systematic undertakings, which ulterior experience will often confirm, and which may serve as a starting point, for the most valuable researches. Their principle object being to characterise different bodies well, they will especially apply themselves to the discovery of the peculiar reactions of each and to determine their true atomic weight. These two philosophers have been long preparing zealous collaborators, by opening the doors of their laboratories to all young men who evinced a true love of the science.

Archives de Medicine.

Art. VI.—*Obstetrical Statistics.*

(Translated for the Western Journal, by J. A. W.)

Dr. Busch, professor of obstetricy in the University of Fred rick-William, at Berlin, has just published some statistics, comprising all the facts observed from the 1st of October 1829 to 31st December 1835.

During this time there has been 2056 births, of which 2035 were single and 21 double, so that the number of children is 2077

of the 2056 mothers, 992 were first deliveries, 1064 had been previously confined, 2 only were delivered after death; 2016 were discharged well, 30 died from the consequences of delivery. The youngest was 16, the oldest 45 years. Of the 2077 children, 1061 were boys, 1000 girls, sixteen the sex was not noted; 2045 were of full term; 32 before the time; 1945 were born alive, 132 still-born, 92 died during the month. 1911 were vertex presentations, 23, face, 28, feet, 2, knees, 47, breech, 54, altogether abnormal, 12 not observed.

Of the accouchments, 1711 were natural, 178 required the forceps, 4 had the natural position induced by external manipulations 57, were turned by the feet, 4, breech, 5, were forced labors, 3, premature, perforation was done 6 times, embryotomy twice, and the cesarean operation 3 times, once during the life of the mother.

The diseases of pregnancy were:—hypochondria 2, epilepsy 2, convulsions 2, intermittent fevers 4, dropsy 1, œdema of the feet 10, hœmoptysis, hernia, rheumatism, rheumatism of the uterus, continuation of the menses, menorrhagia, retroversion of the uterus, swelling of the neck of the uterus, cholera, each once.—*Rust's Magasin, No.* 49, 1837.

Art. VII.—London Journals.

The Lancet, to the end of April is lying before us. A considerable part of each number is taken up with Lectures of the theory and practice of Medicine by Dr. Marshall Hall; and on Materia Medica and Therapeutics by Dr. Seigmond. We are obliged to say, that in looking through the numbers, we do not find much of novelty, either in theory or practice; but a great deal of controversy on the subject of Lectures, Hospitals, Medical police and Animal Magnetism—the last of which seems likely to become a topic of general interest and elaborate inquiry in London. It is worthy of remark, that this has not hitherto been the case in that city.

The Medical Gazette for April, presents us with Lectures by Dr. Southwood Smith, on Forensic Medicine; Dr. C. J. B. Williams, on Diseases of the Chest; and Dr. H. Clutterbrak on Bloodletting. The amount of strictly scientific and practical matter

in the *Gazette*, is on the whole greater than in the *Lancet*. Among the papers is one by Edwin Saunders Esq., Surgeon on the "Employment of Creosote as an Odontalgic remedy," from which we shall quote a few passages.

"It is well known that the human teeth are exceedingly liable to fall into a morbid condition, in which a disorganization and decomposition of their structure take place, and which is familiarly recognized under the terms caries or gangrene. The origin, exciting causes, and precise nature of this disease, are still involved in much obscurity, and will probably long continue, as at present, to divide the opinions of physiologists. It is much less prevalent in the ruder and more uncivilized states of society, and almost unknown amongst the lower animals. It would seem, therefore, to be in some degree connected with a refined and artificial mode of existence, frequent indisposition, the free use of various drugs, and infantile diseases, which, occurring during the formation of the teeth, render their structure imperfect, and less capable of resisting morbid influences in after life. But whatever may be the causes of this very general affection, and probably if they could be clearly ascertained and defined, they would be found altogether beyond control, the effects are uniformly and unequivocally injurious.—Commencing by a small dark spot immediately under the enamel, which soon breaks down, from losing the support of the subjacent bone, portion after portion of the osseous structure of the tooth is destroyed, until the central cavity and its contained vessels become exposed. In this state the contact of atmospheric air, of the tongue, or the slightest pressure of a small particle of food on the delicate and extremely vascular structure thus suddenly denuded, is sufficient to excite in it a high degree of inflammation. From the circumstances of the case, however, being included within a circumscribed cavity whose hard unyielding walls admit of no swelling or expansion of the highly organized membrane it contains, an intensely congested state of the vessels and nerves takes place, and produces that hell o' a' diseases, as Burns has emphatically styled it, the toothache. In these cases, antiphlogistic treatment is out of the question, from the difficulty of its application; and even in the few cases in which it is practicable, as I have more than once experienced, fails to afford the slightest relief. The only treatment of which such cases appear susceptible, and to which, if judiciously applied, the symptoms almost invariably yield, frequently in a very short space of time, is the reiterated application of some highly stimulating or narcotic drug. Amongst the most accessible and valuable preparations of this kind is the camphorated spirit; it is generally far more efficacious than the tinctura opii, lunar caustic, and many other of the popular remedies usually amployed in such cases. The mineral acids, which sometimes afford a temporary relief, are highly objectionable, on account of their action upon the surrounding bone, which speedily destroys the tooth, re-exposes the membrane, and gives rise to a fresh, and probably still more severe attack of the pain. It is in these cases, however, that the creosote becomes valuable, and probably has a good claim to be considered a specific. In few cases of pure toothache, arising from exposure of the internal membrane, not complicated with inflam-

mation of the periosteum, will it fail, after two or three applications, to afford relief. To obtain its best effects, however, some care is required in its application. Fremanger, in the Bulletin Général Thérapeutique, has laid much stress upon the importance of previously wiping out the cavity with a small piece of lint introduced upon the point of a probe: and whenever this is practicable, it is undoubtedly a desirable preliminary, because the mucus of the mouth, which is always abundant where the masticatory function is suspended, will prevent the application from coming immediately into contact with the diseased structure. In a vast number of cases, however, the patient will be utterly unable to endure the agony which this preparatory process inflicts, even when performed in the gentlest manner. A more important hint, but which is too seldom regarded, is to employ the cotton or lint which serves as the vehicle for its introduction, in as small a quantity as possible. The more common practice is to introduce a piece of lint or wool of sufficient size to fill the cavity, which requires so much pressure for its insertion as to cause it to part with a considerable portion of the drug, and thus to prevent it reaching the seat of the disease. If relief be not obtained at once, fresh applications may be made every ten or fifteen minutes, until some effect appears to be produced. Care should also be taken that the wool or lint be not too fully charged with the creosote, considerable pain and inflammation being frequently the result of the effusion of a small quantity on the gums and lips. Mr. Cormack observes, "I once saw a pretty extensive sore, resembling a burn in appearance, caused by the overflow of saliva, which ensued upon the application of creosote to a carious tooth." With the utmost care, however, it is scarcely possible to prevent a small portion escaping into the mouth, more especially if the tooth be situated in the upper row; but this, if mixed with the saliva, which generally flows in great abundance on its application, will occasion but little inconvenience. If the diseased tooth be situated in the lower row, the effect will generally be obtained in a much shorter time than in the upper, because in the former case the creosote will tend towards the seat of disease by its own gravity, while in the latter, unless the patient be placed in a recumbent posture, that force will exert a contrary influence. It is an useful hint to make the patient recline with the head low, and on that side in which the affected tooth exists; as, for instance, if the application be made to one of the molar teeth, on the right side of the upper row, direct the patient to lie on the right side for a short time; the creosote will thus be likely to reach the affected spot, and the risk of any portion of it passing into the throat and stomach will thus be obviated. It would be scarcely necessary to observe, were it not that the notion has been entertained by some of its more zealous advocates, that creosote can exert no preservative effect upon the tooth itself. It simply alleviates the symptoms, without in any degree arresting the progress of the caries, for which different treatment must be sought. The opinion, however, which has been held by others, that it acceleretes the decomposition of the bony structure of the tooth, seems to be equally unfounded, since neither ankaline nor acid qualities are developed on the application of the most delicate tests.